LAX

DECEMBER 2018

PROJECT ID: 5365-00-72

WITH: N/A

COUNTY: RICHLAND

ORDER OF SHEETS

TOTAL SHEETS = 36

DESIGN DESIGNATION

A.A.D.T.	2015	=	94
A.A.D.T.	2035	=	103
D.H.V.		=	20
D.D.		=	50/50
T.		=	1.5%
DESIGN SPEED		=	30 M.P.H.
ESALS		=	7,300

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- HIGH VOLTAGE (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND (ROCK)
- MARSH OR ROCK PROFILE (To be noted as such) (LABEL)
- SPECIAL DITCH
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC — E —
- OVERHEAD UTILITY — OH —
- FIBER OPTIC — FO —
- GAS — G —
- SANITARY SEWER — SAN —
- STORM SEWER — SS —
- TELEPHONE — T —
- WATER — W —
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF RICHLAND, COVERED BRIDGE ROAD

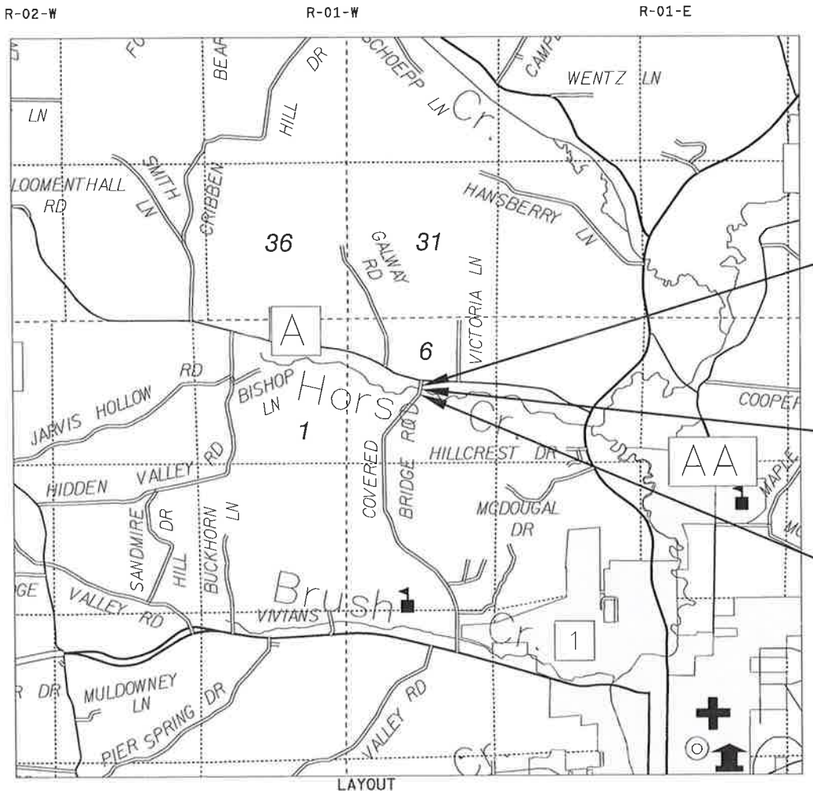
(HORSE CREEK BRIDGE B-52-0274)

LOCAL STREET

RICHLAND COUNTY

STATE PROJECT NUMBER
5365-00-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
PROJECT ID		
5365-00-72	———	—



LAYOUT

SCALE 0 1 MILES

TOTAL NET LENGTH OF CENTERLINE = 0.063 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, RICHLAND COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR

TOWN of RICHLAND

6-9-18 (Date) Chairman (Signature & Title of Official)

ACCEPTED FOR

COUNTY of RICHLAND

6-7-18 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WISCONSIN 53588
PHONE (608) 588-7866
FAX (608) 588-7954

WISCONSIN AARON B. PALMER E-35695 RICHLAND CENTER, WI PROFESSIONAL ENGINEER

6-6-18 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: WESTBROOK

Designer: WESTBROOK

Management Consultant: KL ENGINEERING, INC.

APPROVED FOR THE DEPARTMENT

DATE: 7/24/18 Management Consultant Signature

E

STANDARD ABBREVIATIONS

ABUT.	Abutment
AC	Acre
AGG.	Aggregate
AH	Ahead
<	Angle
ASPH	Asphaltic
AVG.	Average
A.D.T	Average Daily Traffic
BAD	Base Aggregate Dense
BK	Back
BF	Back Face
B.M.	Bench Mark
BR.	Bridge
C/L	Center Line
CC	Center to Center
CTH	County Trunk Highway
CR.	Creek
CY or CU YD	Cubic Yard
CP	Culvert Pipe
C & G	Curb and Gutter
D	Degree of Curve
DHV	Design Hour Volume
DIA	Diameter
E	East
X	East Grid Coordinate
ELEC	Electric
EL OR ELEV	Elevation
ESALS	Equivalent Single Ac=xle Loads
EBS	Excavation Below Subgrade
FF	Face to Face
FE	Field Entrance
F	Fill
FG	Finished Grade
FL or F/L	Flow Line
FT	Foot
FTG	Footing
GN	Grid North
HT	Height
CWT	Hundredweight
HYD	Hydrant
INL	inlet
ID	Inside Diameter
INV	Invert
IP	Iron Pipe or Pin
IRS	Iron Rod Set
JT	Joint
JCT	Junction
LHF	Left–Hand Forward
L	Length of Curve
LIN FT OR LF	Linear Foot
LC	Long Chord of Curve
MH	Manhole
MB	Mailbox
ML OR M/L	Match Line
N	North
Y	North Grid Coordinate
OD	Outside Diameter
PLE	Permanent Limited Easement
PT	Point
PC	Point of Curvature
PI	Point of Intersection
PRC	Point of Reverse Curvature
PT	Point of Tangency
POC	Point on Curve
PVC	Polyvinyl Chloride
PCC	Portland Cement Concrete
LB	Pound
PSI	Pounds Per Square Inch
PE	Private Entrance
R	Radius
RR	Railroad
RL OR R/L	Reference Line
RP	Reference Point
RCCP	Reinforced Concrete Culvert Pipe
REQD	Required
RES	Residence or Residential
RW	Retaining Wall
RT	Right
RHF	Right–Hand Forward
R/W	Right–of–Way
R	River
RD	Road
RDWY	Roadway
SALV	Salvaged
SAN S	Sanitary Sewer
SEC	Section
SHLDR	Shoulder
SHR	SHRINKAGE
SW	Sidewalk
S	South
SQ	Square
SF OR SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail Drawings
STH	State Trunk Highway
STA	Station
SS	Storm Sewer
SG	Subgrade
SE	Superelevation
SL or S/L	Survey Line
SV	Septic Vent
T	Tangent
TEL	Telephone
TEMP	Temporary
TI	Temporary Interest
t	Ton
T or TN	Town
TRANS	Transition
TL OR T/L	Transit Line
T	Trucks (percent of)
TYP	Typical
UNCL	Unclassified
UG	Underground Cable
USH	United States Highway
VAR	Variable
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
VOL	Volume
WM	Water Main
WV	Water Valve
W	West
WB	Westbound
YD	Yard

CONTACTS

CONSULTANT LIAISON

WESTBROOK ASSOCIATED ENGINEERS, INC.
619 EAST HOXIE STREET
SPRING GREEN, WI 53588

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PH: (608) 588–7866
FAX: (608) 588–7954
aplamer@westbrookeng.com

COUNTY LIAISON

RICHLAND COUNTY HIGHWAY DEPT.
120 BOWEN CIRCLE
RICHLAND CENTER, WI 53581

ATTN: BILL CONDON
PH: (608) 647–4707
bill.condon@co.richland.wi.us

WisDNR LIAISON

DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711

ATTN: ANDY BARTA
PH: (608) 275–3308
andrew.barta@wisconsin.gov

UTILITIES

ELECTRIC AND GAS
ALLIANT ENERGY
ATTN: CHRIS CHITWOOD
SUITE 1000
4902 N BILTMORE LANE
MADISON, WI 53718
(608) 458–4871
chrischitwood@alliantenergy.com

COMMUNICATIONS
FRONTIER
ATTN: JERRY MOORE
2222 WEST WISCONSIN STREET
PORTAGE, WI 53901
(608) 742–9507
jerald.r.moore@ftr.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

ORDER OF SECTION 2 SHEETS

RUNOFF COEFFICIENT TABLE

HYDROLOGIC SOIL GROUP												
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE	0–2	2–6	6 & OVER	0–2	2–6	6 & OVER	0–2	2–6	6 & OVER	0–2	2–6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP–TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE–TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 – .95											
CONCRETE	.80 – .95											
BRICK	.70 – .80											
DRIVES,WALKS	.75 – .85											
ROOFS	.75 – .95											
GRAVEL ROADS, SHOULDERS	.40 – .60											

TOTAL PROJECT AREA = 0.37 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.31 ACRES

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. SILT FENCE SHALL BE IN PLACE PRIOR TO CONSTRUCTION.

DISTURBED AREAS WITHIN THE RIGHT–OF–WAY, EXCEPT THE DRIVING LANES AND THE SHOULDERS ARE TO BE FERTILIZED, SEEDED, TEMPORARY SEEDED, AND MULCHED, OR AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 3 LBS PER 1000 SQUARE FEET.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

WETLANDS ARE PRESENT AT THE LOCATIONS SHOWN IN THE PLANS. DO NOT OPERATE MACHINERY OUTSIDE OF THE SLOPE INTERCEPTS IN THESE LOCATIONS.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

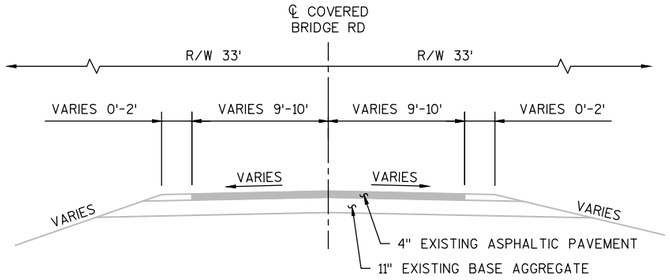
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES.

D.O.T. MONUMENT IS TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR IN THE SAME WING THAT THE PROPOSED NAME PLATE WILL BE PLACED, AS DIRECTED BY THE ENGINEER.

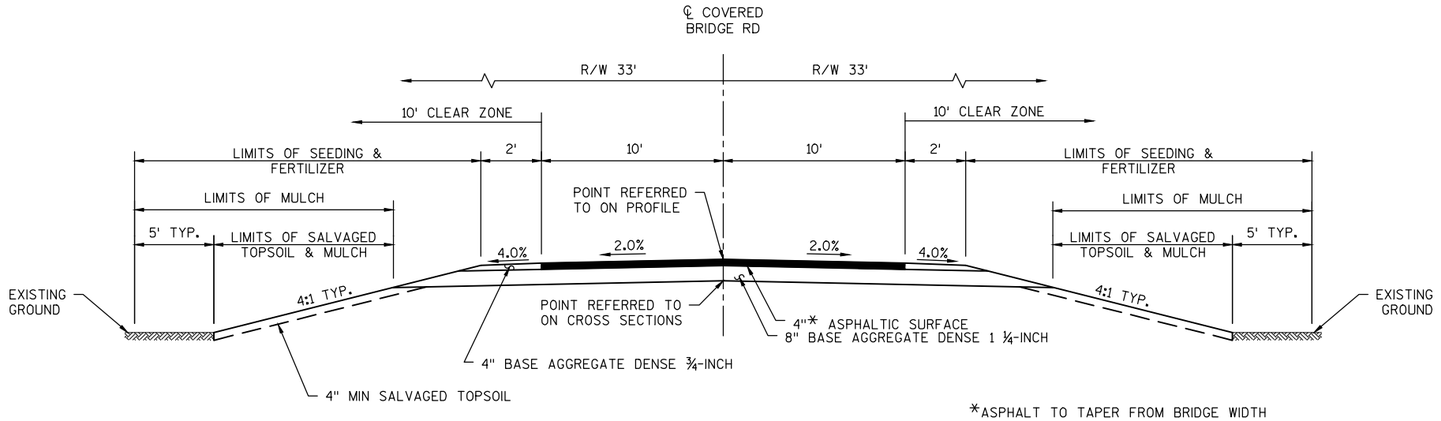
COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), RICHLAND COUNTY, HORIZONTAL DATUM NAD83, ELEVATION DATUM NAVD88.

ASPHALTIC SURFACE LAYERS:
- UPPER: 1¾" (12.5 MM NOMINAL SIZE)
- LOWER: 2¼" (12.5 MM NOMINAL SIZE)

2



TYPICAL EXISTING SECTION



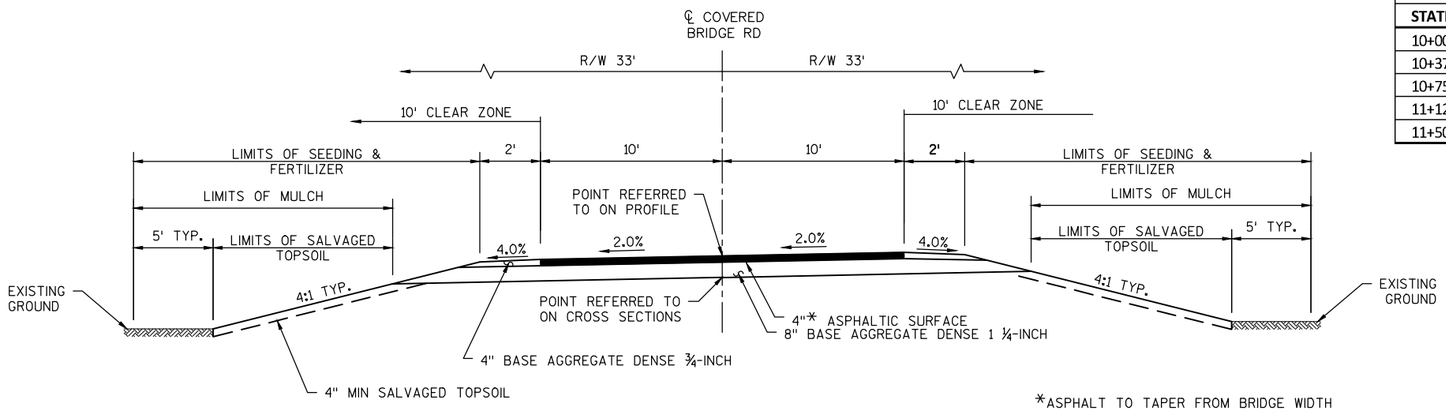
TYPICAL FINISHED SECTION

STA. 11+50 - STA. 13+35

*ASPHALT TO TAPER FROM BRIDGE WIDTH
TO 20' AT 30' FROM BRIDGE ENDS.

SUPERELEVATION TABLE: P.I. STA. = 10+77.12

STATION	REMARK	LEFT	RIGHT
10+00.00	END NORMAL CROWN	-2.00%	-2.00%
10+37.50	LEVEL CROWN	-2.00%	0.00%
10+75.00	REVERESE CROWN	-2.00%	2.00%
11+12.50	LEVEL CROWN	-2.00%	0.00%
11+50.00	END NORMAL CROWN	-2.00%	-2.00%



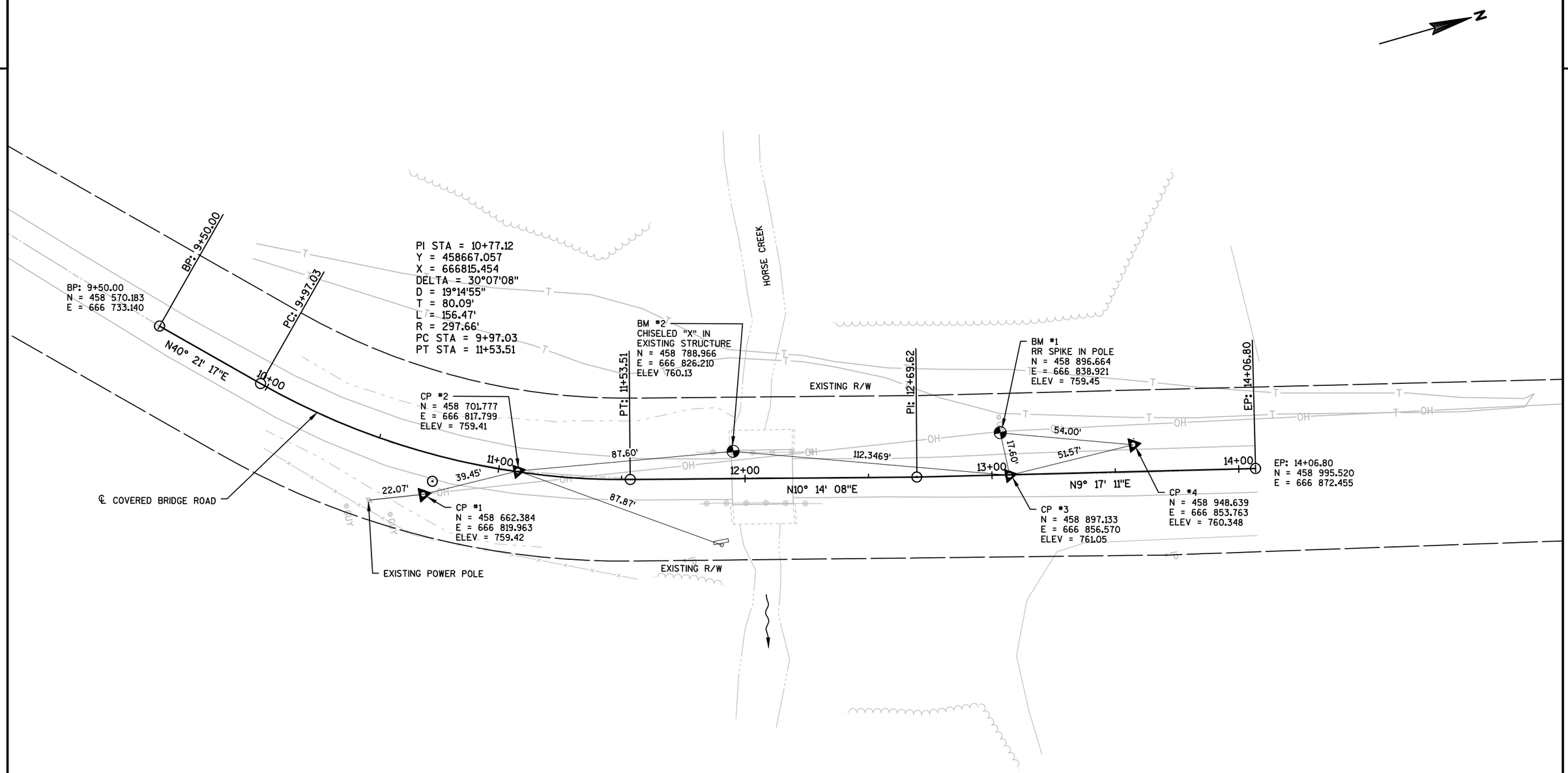
TYPICAL FINISHED SUPERELEVATED SECTION

STA. 10+00 - STA. 11+50

*ASPHALT TO TAPER FROM BRIDGE WIDTH
TO 20' AT 30' FROM BRIDGE ENDS.

PROJECT NO:5365-00-72	HWY:COVERED BRIDGE ROAD	COUNTY:RICHLAND	TYPICAL SECTIONS	SHEET 3	E

2



PROJECT NO:5365-00-72	HWY:COVERED BRIDGE ROAD	COUNTY:RICHLAND	ALIGNMENT DETAILS & CONTROL POINTS	SHEET 4	E

FILE NAME : G:\00-PROJECT FILES\2017\17026 T. OF RICHLAND, COVERED BRIDGE ROAD ID 5365-00-02\CAD\COVERERED BRIDGE ROAD\SHEETSPLAN\027001ALIGN.DWG
LAYOUT NAME - ****
TIME/DATE : 3/12/2018 3:49 PM PLOT BY : LUKE C. SANDER PLOT NAME : PLOT SCALE : 1 IN:40 FT

5365-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 12+07	LS	1.000	1.000
0004	204.0165	Removing Guardrail	LF	100.000	100.000
0006	205.0100	Excavation Common	CY	280.000	280.000
0008	206.1000	Excavation for Structures Bridges (structure) 01. B-52-0274	LS	1.000	1.000
0010	210.1500	Backfill Structure Type A	TON	480.000	480.000
0012	213.0100	Finishing Roadway (project) 01. 5356-00-72	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	45.000	45.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	440.000	440.000
0018	455.0605	Tack Coat	GAL	37.000	37.000
0020	465.0105	Asphaltic Surface	TON	150.000	150.000
0022	502.0100	Concrete Masonry Bridges	CY	146.000	146.000
0024	502.3200	Protective Surface Treatment	SY	165.000	165.000
0026	505.0400	Bar Steel Reinforcement HS Structures	LB	4,330.000	4,330.000
0028	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	16,670.000	16,670.000
0030	513.4061	Railing Tubular Type M 01. B-52-0274	LF	80.000	80.000
0032	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0034	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	700.000	700.000
0036	606.0300	Riprap Heavy	CY	55.000	55.000
0038	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5365-00-72	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	624.0100	Water	MGAL	22.000	22.000
0046	625.0500	Salvaged Topsoil	SY	359.000	359.000
0048	627.0200	Mulching	SY	622.000	622.000
0050	628.1504	Silt Fence	LF	800.000	800.000
0052	628.1520	Silt Fence Maintenance	LF	800.000	800.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.6005	Turbidity Barriers	SY	100.000	100.000
0060	629.0210	Fertilizer Type B	CWT	1.000	1.000
0062	630.0120	Seeding Mixture No. 20	LB	30.000	30.000
0064	630.0200	Seeding Temporary	LB	30.000	30.000
0066	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0068	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0070	638.2602	Removing Signs Type II	EACH	4.000	4.000
0072	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0074	642.5001	Field Office Type B	EACH	1.000	1.000

5365-00-72

Line	Item	Item Description	Unit	Total	Qty
0076	643.0420	Traffic Control Barricades Type III	DAY	1,098.000	1,098.000
0078	643.0705	Traffic Control Warning Lights Type A	DAY	1,708.000	1,708.000
0080	643.0900	Traffic Control Signs	DAY	854.000	854.000
0082	643.5000	Traffic Control	EACH	1.000	1.000
0084	645.0111	Geotextile Type DF Schedule A	SY	86.000	86.000
0086	645.0120	Geotextile Type HR	SY	145.000	145.000
0088	650.4500	Construction Staking Subgrade	LF	300.000	300.000
0090	650.5000	Construction Staking Base	LF	300.000	300.000
0092	650.6500	Construction Staking Structure Layout (structure) 01. B-52-0274	LS	1.000	1.000
0094	650.9910	Construction Staking Supplemental Control (project) 01. 5365-00-72	LS	1.000	1.000
0096	650.9920	Construction Staking Slope Stakes	LF	300.000	300.000
0098	690.0150	Sawing Asphalt	LF	44.000	44.000
0100	715.0502	Incentive Strength Concrete Structures	DOL	876.000	876.000

3

REMOVING GUARDRAIL

STATION	-	STATION	LOCATION	204.0165 REMOVING GUARDRAIL (LF)
11+80	-	12+30	Mainline, RT.	50
11+81	-	12+31	Mainline, LT.	50
			TOTALS	100

EARTHWORK SUMMARY

FILL EXPANSION = 30%

STATION	-	STATION	LOCATION	205.0100 COMMON EXCAVATION **P** (CY)	FILL (CY)	EXPANDED FILL (CY)	WASTE (CY)
10+00.00	-	11+88.25	MAINLINE	167	35	46	121
12+25.75	-	13+35.00	MAINLINE	113	14	18	95
			TOTALS	280	49	64	216

3

BASE AGGREGATE DENSE

STATION	-	STATION	LOCATION	305.0110 3/4-INCH SHLD. (TON)	305.0120 1 1/4-INCH BASE (TON)	624.0100 WATER* (MGAL)
10+00.00	-	11+88.25	MAINLINE	29	278	5
12+25.75	-	13+35.00	MAINLINE	16	162	3
			TOTALS	45	440	8

*ADDITIONAL QUANTITY INCLUDED WITH EROSION CONTROL ITEMS

ASPHALTIC ITEMS

STATION	-	STATION	LOCATION	465.0105 ASPHALTIC SURFACE (TON)	455.0600 TACK COAT (GAL)
10+00.00	-	11+88.25	MAINLINE	95	23
12+25.75	-	13+35.00	MAINLINE	55	14
			TOTALS	150	37

MAINTENANCE AND REPAIR OF HAUL ROADS

LOCATION	618.0100** ID 5365-00-72 (EACH)
PROJECT	1
TOTALS	1.0

**CATEGORY 30 ITEM

FINISHING ITEMS

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0200 SEEDING TEMPORARY (LB)	630.0120 SEEDING NO. 20 (LB)	624.0100 WATER* (MGAL)
10+00.00	-	11+88.25	MAINLINE	211	370	0.4	16	16	8
12+25.75	-	13+35.00	MAINLINE	104	182	0.2	9	9	4
			UNDISTRIBUTED	44	70	0.4	5	5	2
			TOTALS	359	622	1	30	30	14

*ADDITIONAL QUANTITY INCLUDED WITH BASE AGGREGATE ITEMS

SILT FENCE

STATION	-	STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
10+00	-	11+99	LT	187	187
10+00	-	12+02	RT	215	215
12+11	-	13+35	LT	125	125
12+14	-	13+35	RT	122	122
			UNDISTRIBUTED	151	151
			TOTALS	800	800

3

TURBIDITY BARRIER

LOCATION	628.6005 (SY)
SOUTH ABUTMENT	50
NORTH ABUTMENT	50
TOTAL	100

SIGNS

STATION	LOCATION	SIGN CODE	SIZE	637.223 SIGNS TYPE II REFFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6-IN X 12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3 REMOVING SMALL SIGN SUPPORTS (EACH)	COMMENTS
11+80	LT	W5-52L	12"x36"	3	1	1	1	OBJECT MARKER
11+80	RT	W5-52R	12"x36"	3	1	1	1	OBJECT MARKER
12+30	LT	W5-52L	12"x36"	3	1	1	1	OBJECT MARKER
12+30	RT	W5-52R	12"x36"	3	1	1	1	OBJECT MARKER
		TOTALS		12	4	4	4	

3

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATION (EACH)	628.1520 EMERGENCY MOB. (EACH)
PROJECT 5365-00-72	2	2
TOTALS	2	2

TRAFFIC CONTROL ITEMS

LOCATION	DURATION DAYS	643.0420 BARRICADES, TYPE III NO.	643.0420 BARRICADES, TYPE III DAYS	643.0705 WARNING LIGHTS, TYPE A NO.	643.0705 WARNING LIGHTS, TYPE A DAYS	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.5000 TRAFFIC CONTROL EACH
AS DIRECTED BY ENGINEER	61	18	1098	28	1708	14	854	---
COVERED BRIDGE RD	---	---	---	---	---	---	---	1
		18	1098	28	1708	14	854	1

PLACE TRAFFIC CONTROL IN ACCORDANCE WITH SDD 15C2

SAWING EXISTING PAVEMENT

STATION	LOCATION	690.0150 (L.F.)
10+00.00	MAINLINE	22
13+35.00	MAINLINE	22
TOTAL		44

LAYOUT ITEMS

CATEGORY	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.5000 CONSTRUCTION STAKING BASE (LF)	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-52-0274) (LUMP)	650.9910 CONSTRUCTION STAKING SUPP. CONTROL (ID 5365-00-72) (LUMP)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)
10	10+00 - 13+35	300	300	---	1	300
20	B-52-0274	---	---	1	---	---
	TOTALS	300	300	1	1	300

WILLIAM A. SCHROEDER

KENT MARSHALL

WILLIAM L. BEWICK & JOHN GUELIG

CHRISTOPHER HOOKSTEAD

COVERED BRIDGE RD (ASPHALT)

HORSE CREEK

REMOVE EXISTING STRUCTURE P-52-0189
STA. 12+07, DOUBLE CELL BOX CULVERT
26-FT OVER ALL LENGTH AND
20-FT CLEAR ROADWAY WIDTH

PI STA = 10+77.12
Y = 458667.057
X = 666815.454
DELTA = 30°07'08"
D = 19°14'55"
T = 80.09'
L = 156.47'
R = 297.66'
PC STA = 9+97.03
PT STA = 11+53.51

BP: 9+50.00

PC: 9+97.03

R/W

SAWCUT

N40° 21' 17"E

℄ COVERED BRIDGE RD

10+00

33'

FRONTIER COMMUNICATIONS

SLOPE INTERCEPT

HT: 11+53.51

RIPRAP HEAVY, TYP.

BH: 12+69.62

EP: 14+06.80

BM #1

CP #4

BM #2

11+00

CP #2

12+00

N10° 14' 08"E

13+00

CP #3

N9° 17' 11"E

14+00

CP #1

ALLIANT ENERGY

CAUTION

SAWCUT

TURBIDITY BARRIER, TYP.

SLOPE INTERCEPT

BEGIN PROJECT
STA. 10+00.00
Y= 458 608.295
X= 666 765.504

END PROJECT
STA. 13+35.00
Y= 458 924.660
X= 666 860.869

STA. 12+07, STRUCTURE B-52-0274
SINGLE SPAN FLAT CONCRETE SLAB
24-FT CLEAR ROADWAY WIDTH
0.0° SKEW

LEGEND

- SILT FENCE
- TURBIDITY BARRIER
- RIPRAP
- FLOW ARROW
- WETLAND

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	13+03.83	RAILROAD SPIKE SET EAST SIDE OF TELEPHONE POLE, 17.14' LT	759.46
2	11+95.29	CHISELED "X" ON TOP OF EXISTING STRUCTURE SW CORNER, 11.05' LT	760.08

VCL = 180.12
K = 121.49

STA 10+00.00
EL 760.08

-0.73%

EXISTING ℄ PROFILE

0.75%

STA 13+35.00
EL 761.20

FINISHED ℄ PROFILE

HIGH WATER$_{100}$
EL. = 784.38

VPC STA 10+04.24
VPC EL 760.05

VPI STA 10+94.30
VPI EL 759.39

VPT STA 11+84.36
VPT EL 760.07

OBSERVED WATER
EL. = 751.79'
(2-14-17)

APPROX. STREAMBED EL. = 751.51

EXISTING C/L ELEVATION

PROPOSED C/L ELEVATION

765
760
755
750

760.48
760.08 760.08
759.69 759.80
759.47 759.73
760.09 759.86
751.39 760.19
760.95 760.56
761.03 760.94
761.27
761.62

9+00 10+00 11+00 12+00 13+00 14+00 15+00

EARTHWORK SUMMARY
STA. 10+00 - 13+35

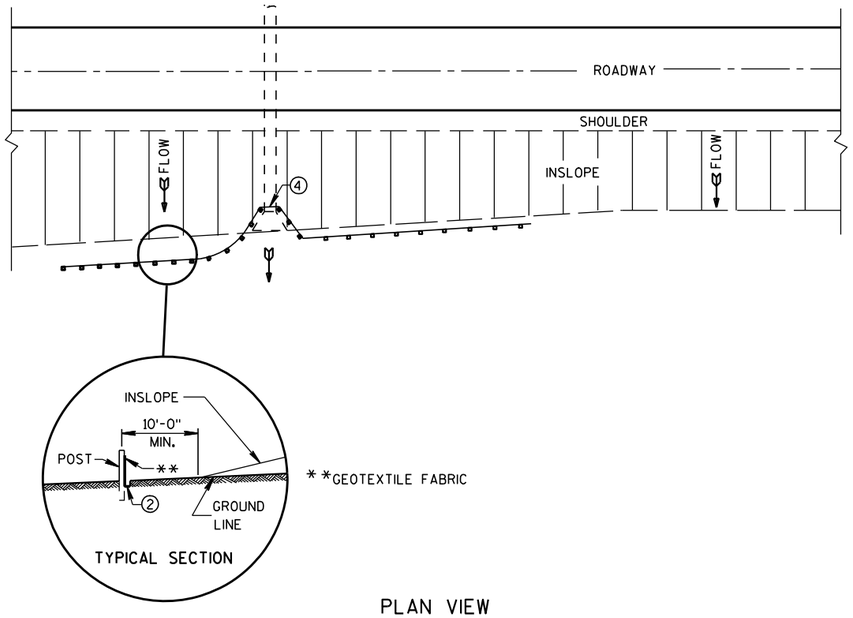
COMMON EXCAVATION:	280 C.Y.
FILL:	49 C.Y.
FILL EXPANSION:	30%
WASTE:	231 C.Y.

PROJECT NO: 5365-00-72	HWY: COVERED BRIDGE ROAD	COUNTY: RICHLAND	PLAN AND PROFILE: MAINLINE	SHEET 9	E

FILE NAME : G:\00-PROJECT FILES\2017\17026 T. OF RICHLAND, COVERED BRIDGE ROAD ID 5365-00-02\CAD\COVERERED BRIDGE ROAD\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - ####
PLOT DATE : 3/14/2018 3:58 PM PLOT BY : LUKE C. SANDER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

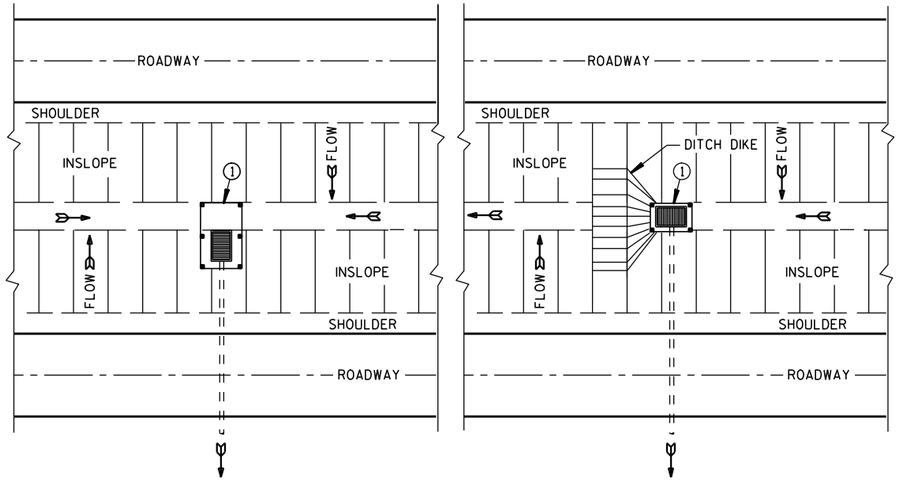
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



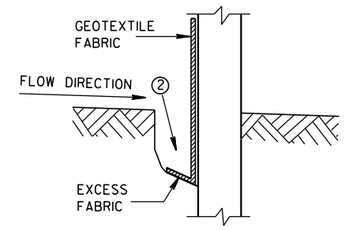
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

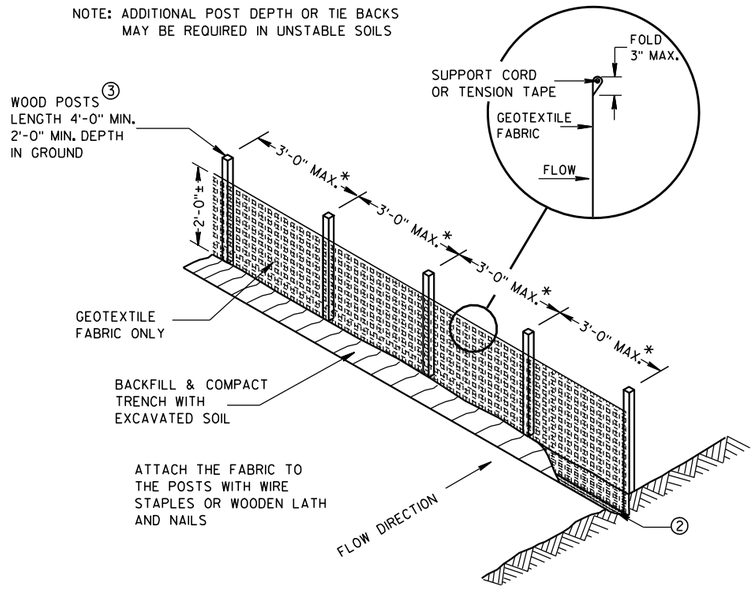
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

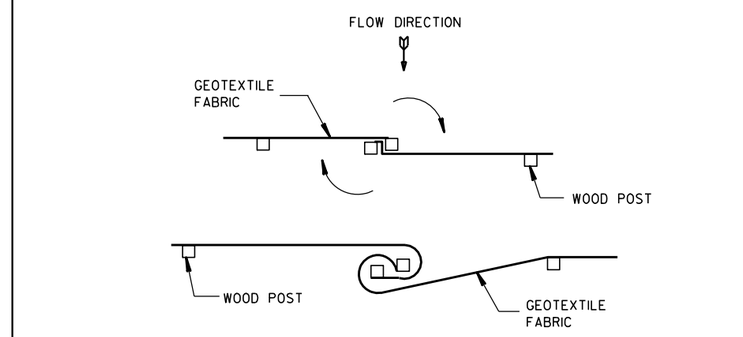


TRENCH DETAIL

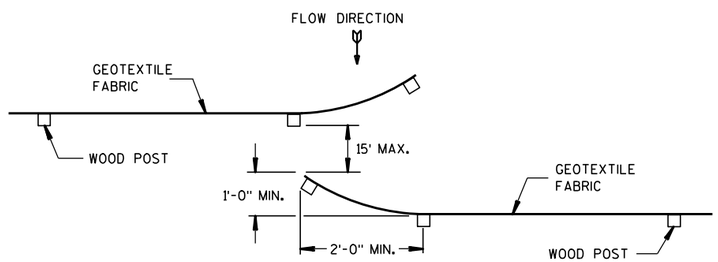


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

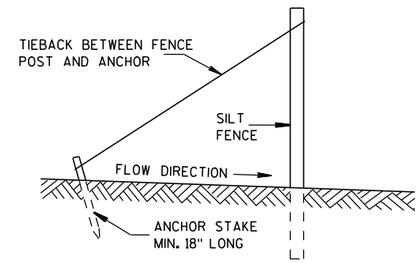


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

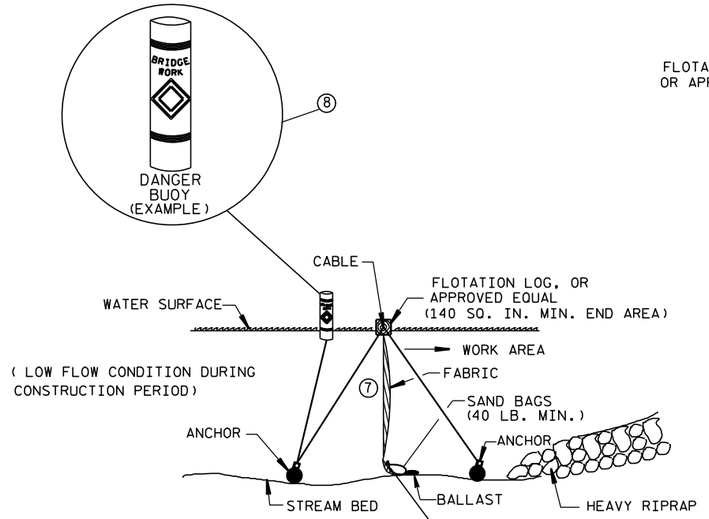
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

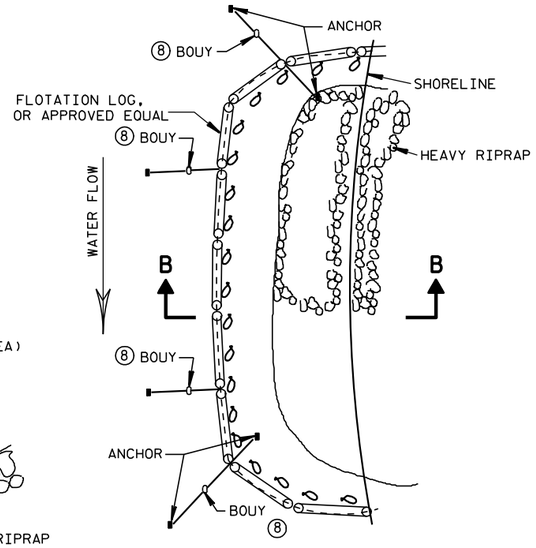
S.D.D. 8 E 9-6

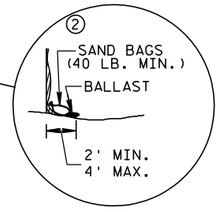
6

S.D.D. 8 E 9-6

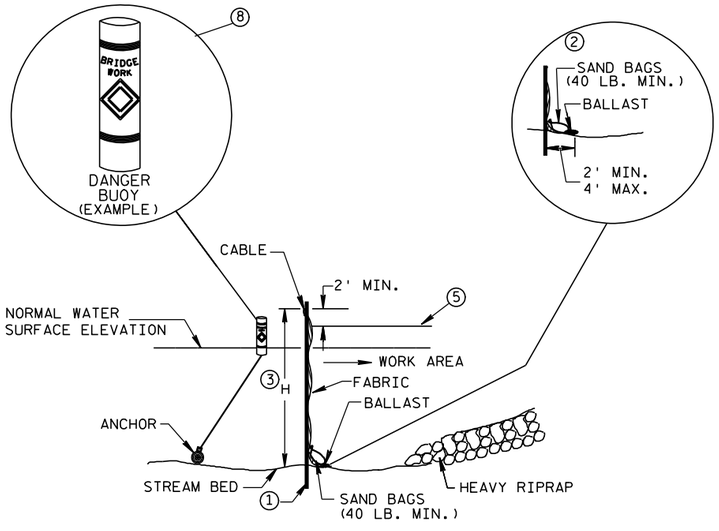


SECTION B-B

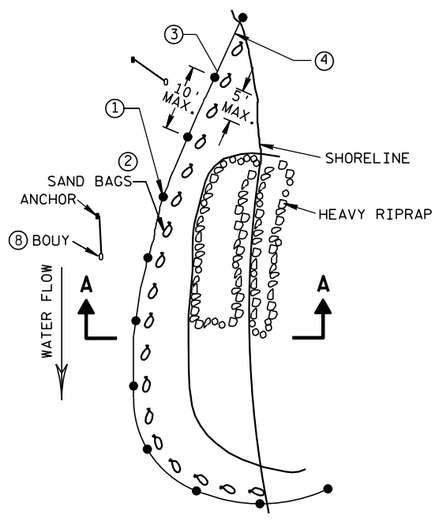




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

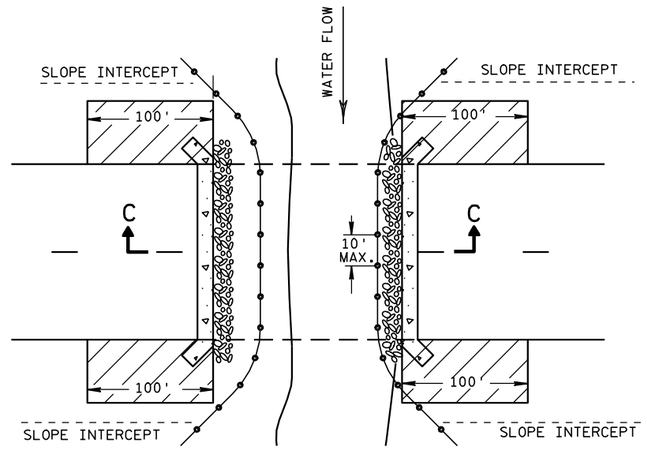
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

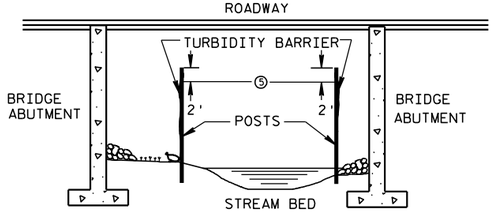
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



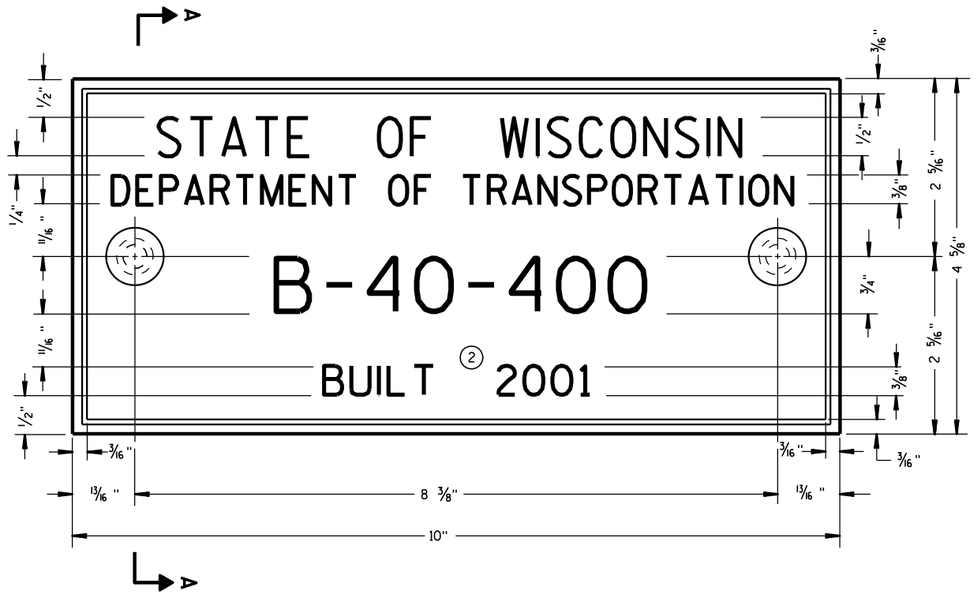
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

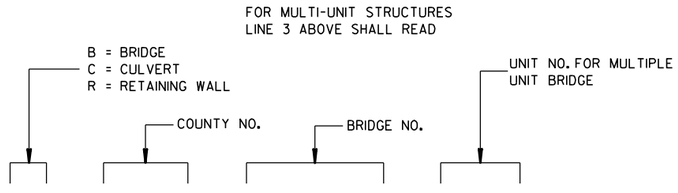
6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

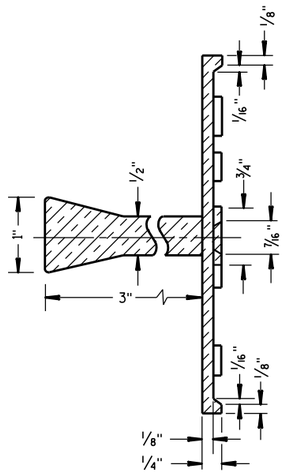
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

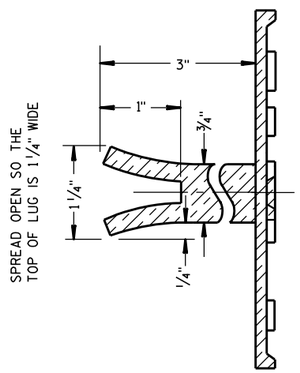
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

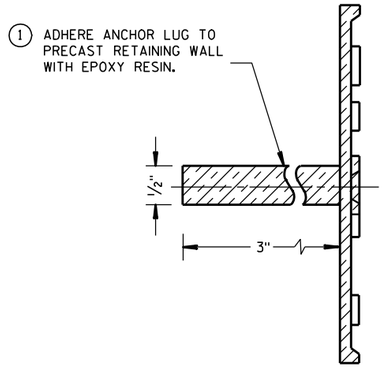
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



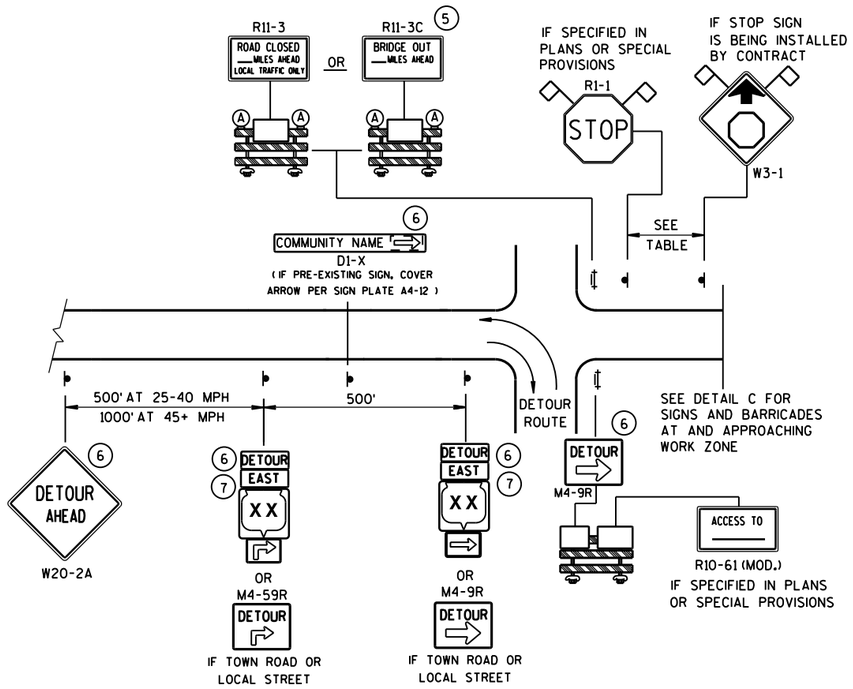
ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

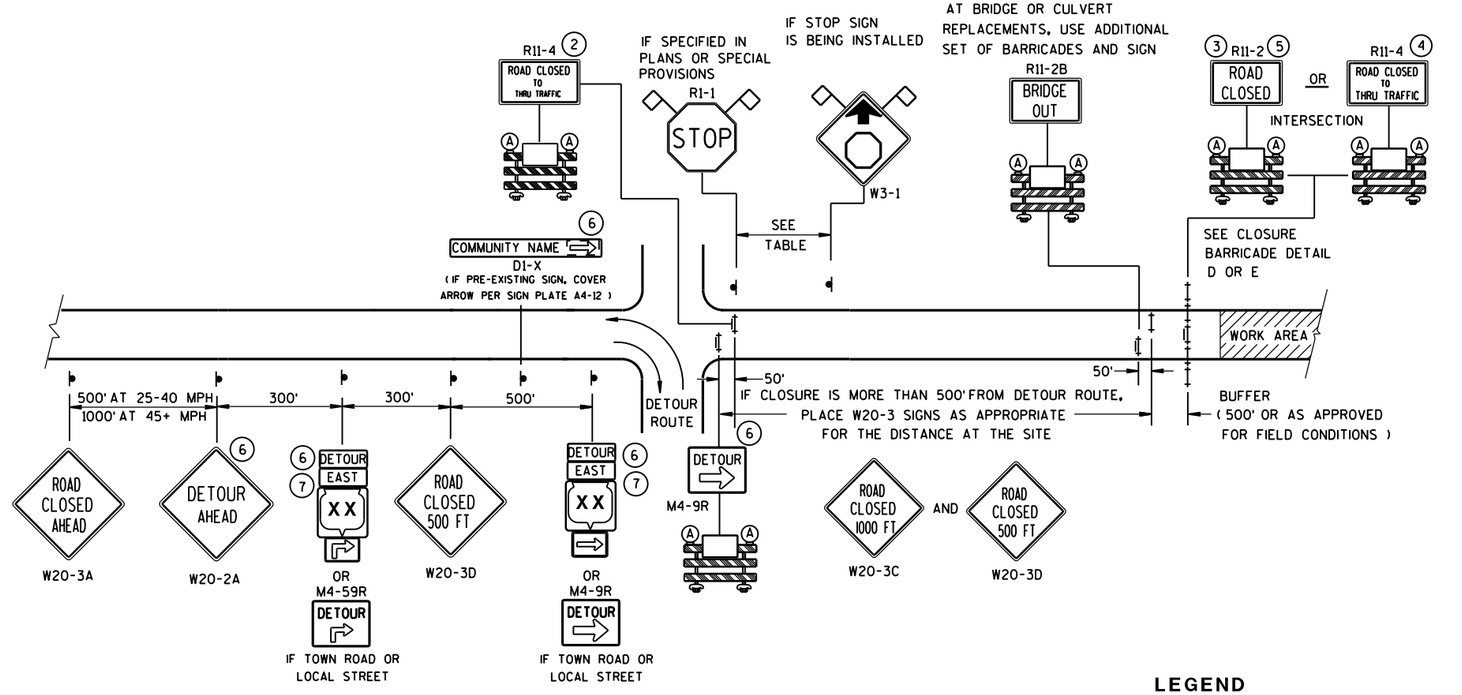
6

S.D.D. 12 A 3-10



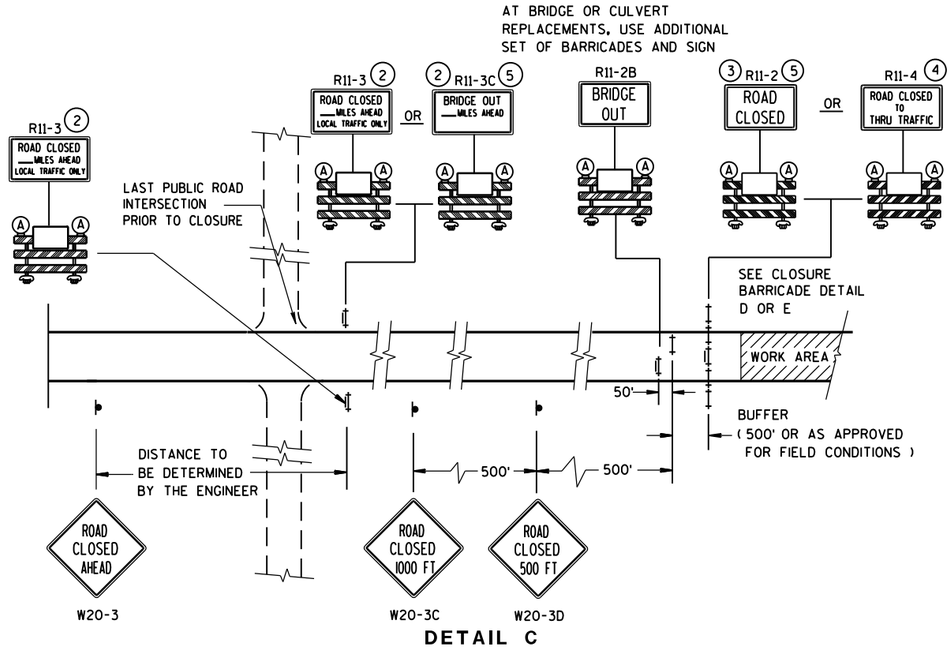
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

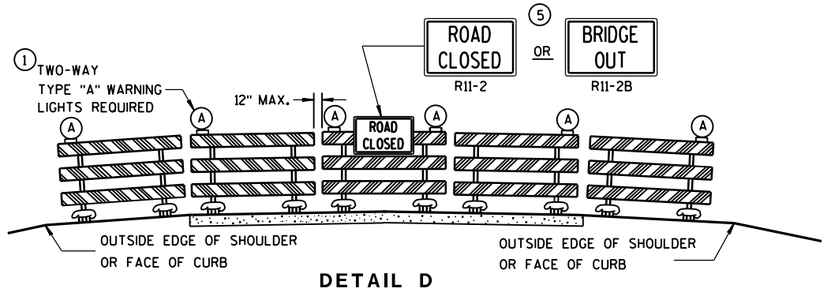
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

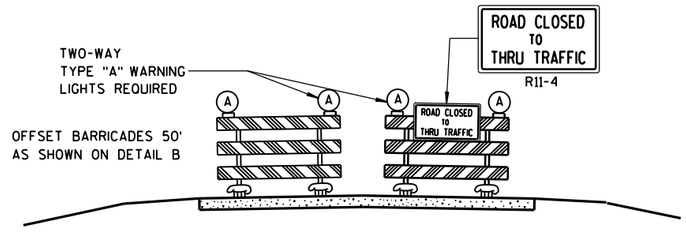
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

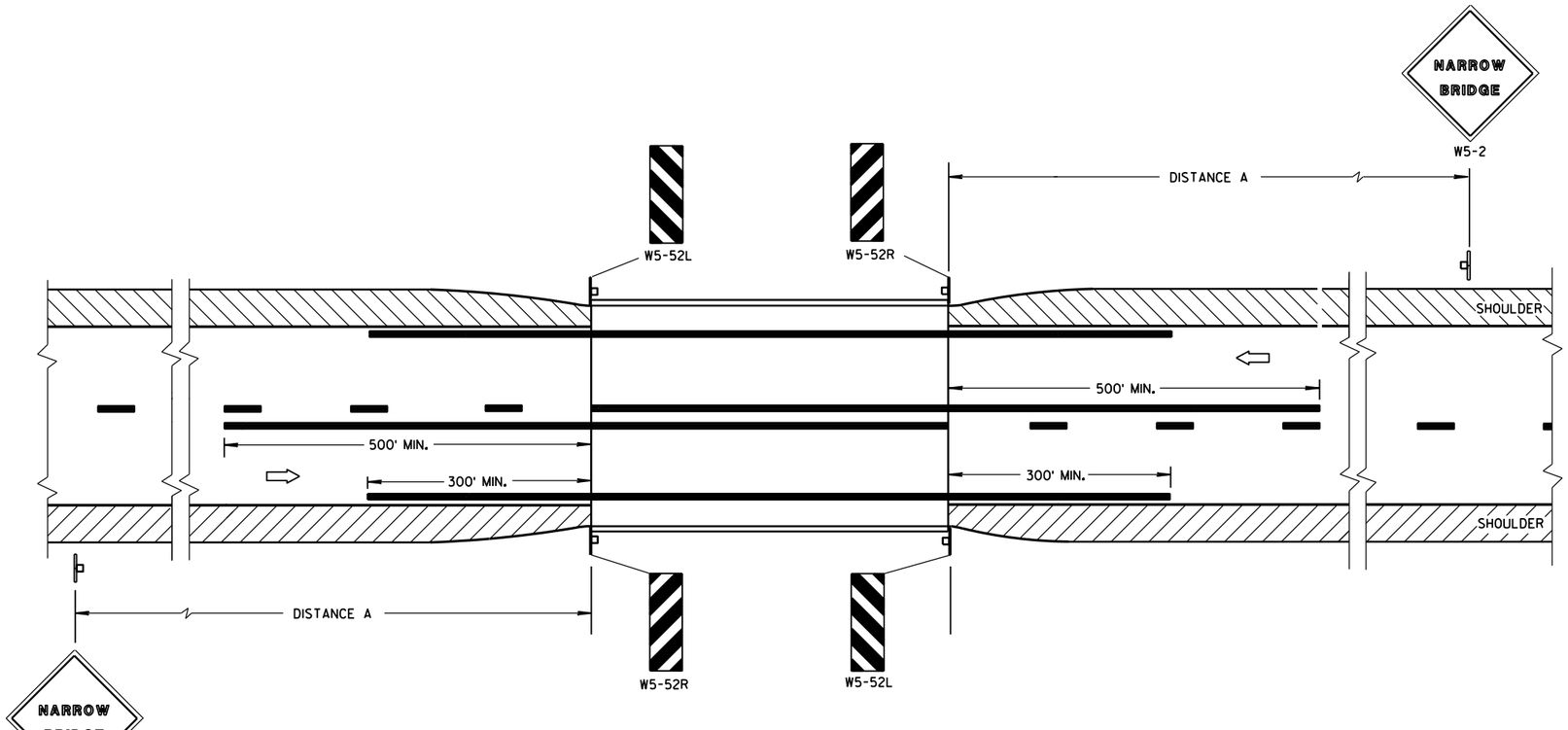
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FHWA — FIC

6

S.D.D. 15 C 2-6b



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

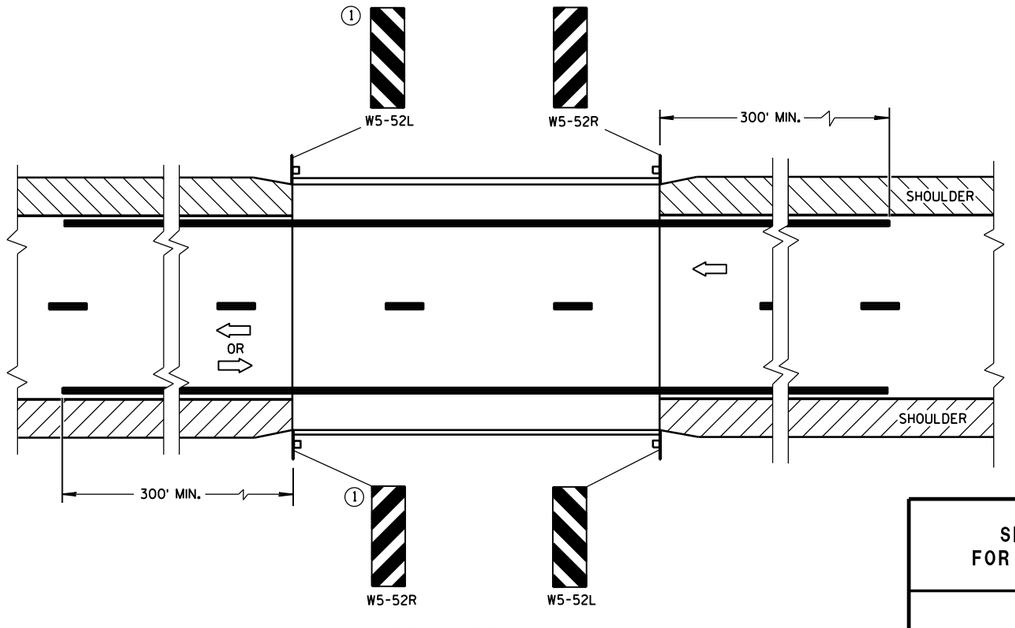
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

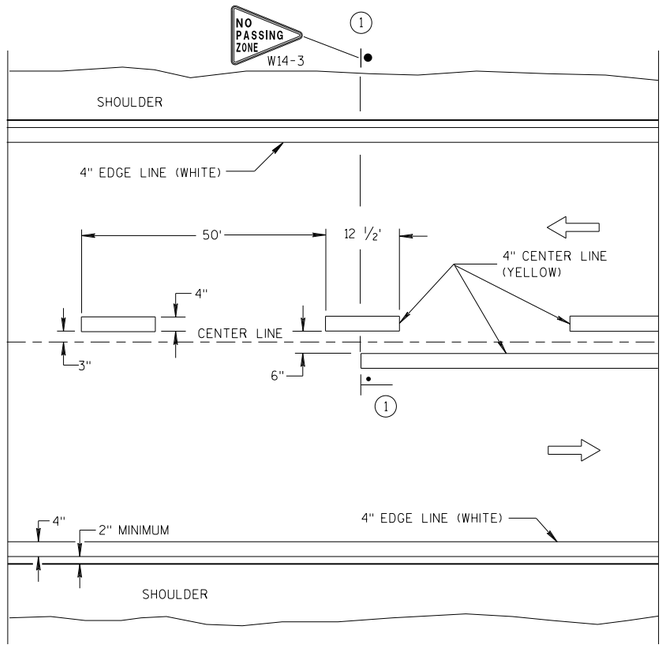
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

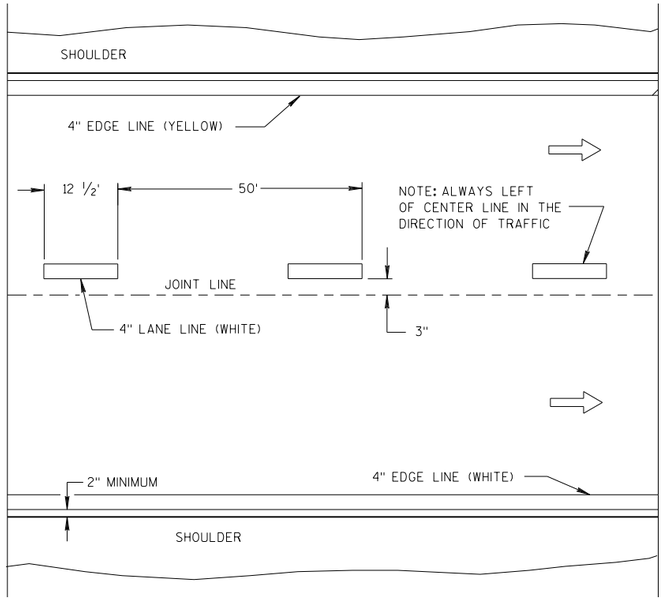
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...IEER
FHWA

6

S.D.D. 15 C 6-9



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

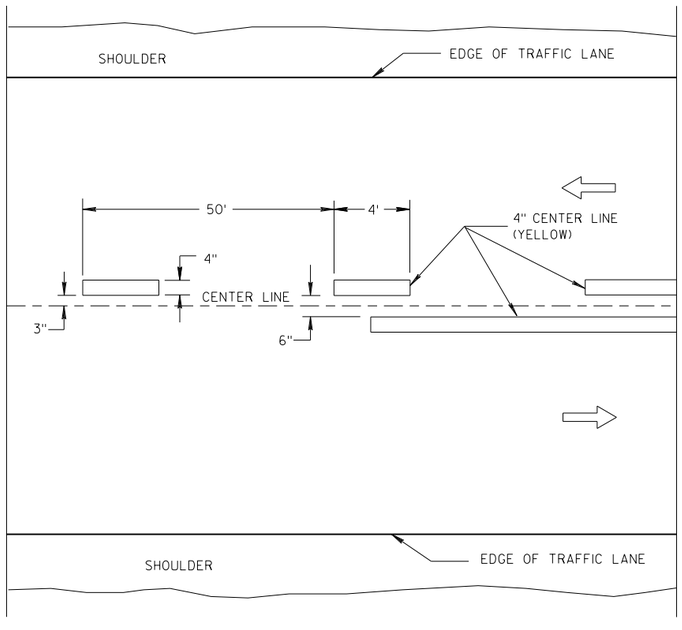
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

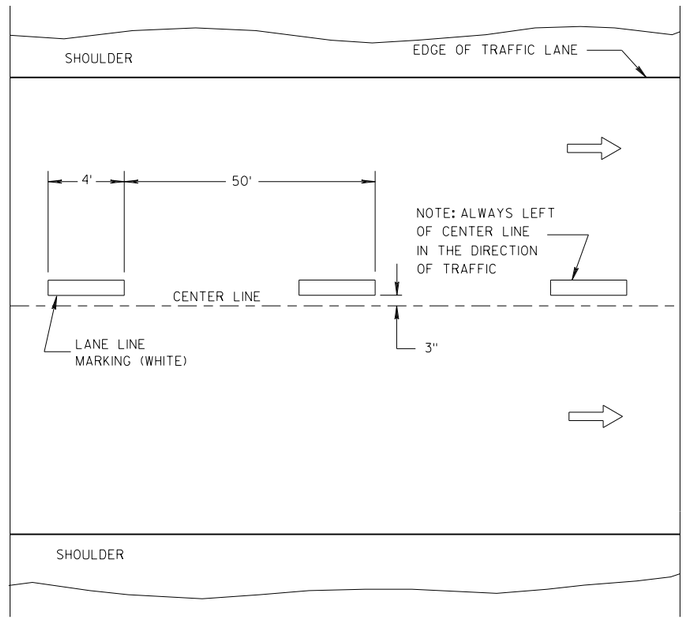
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

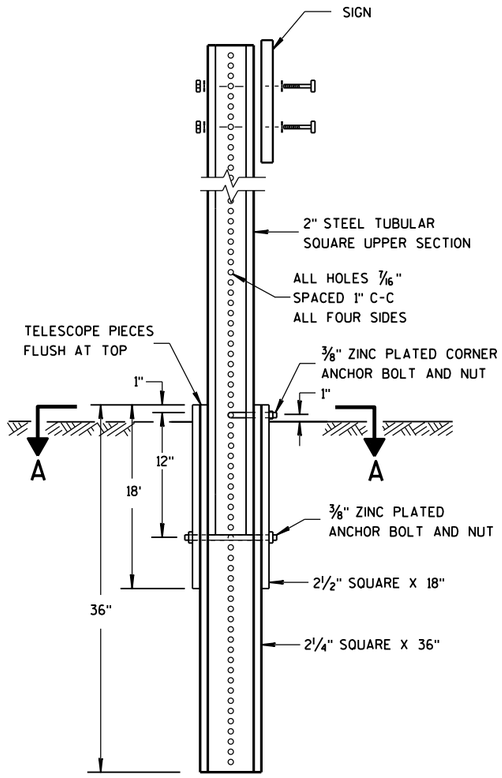
7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

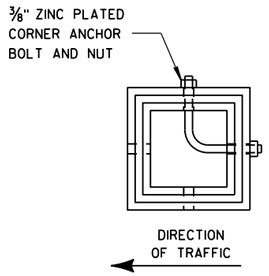
FHWA

6

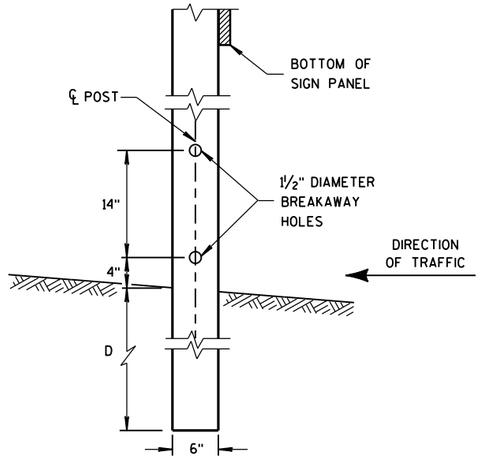
S.D.D. 15 C 8-19a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



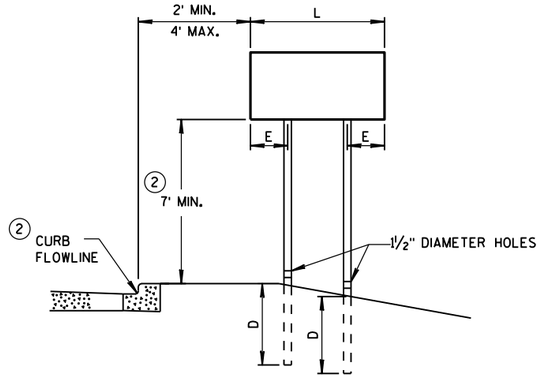
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

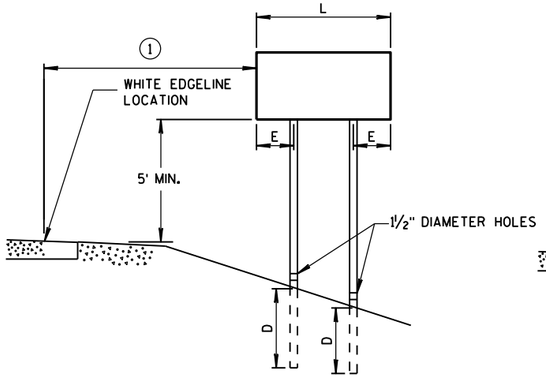
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

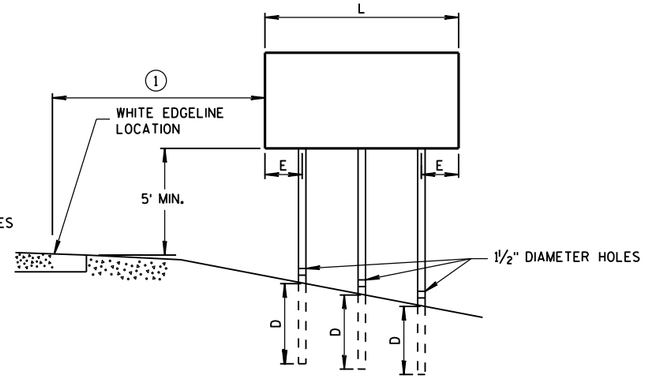
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

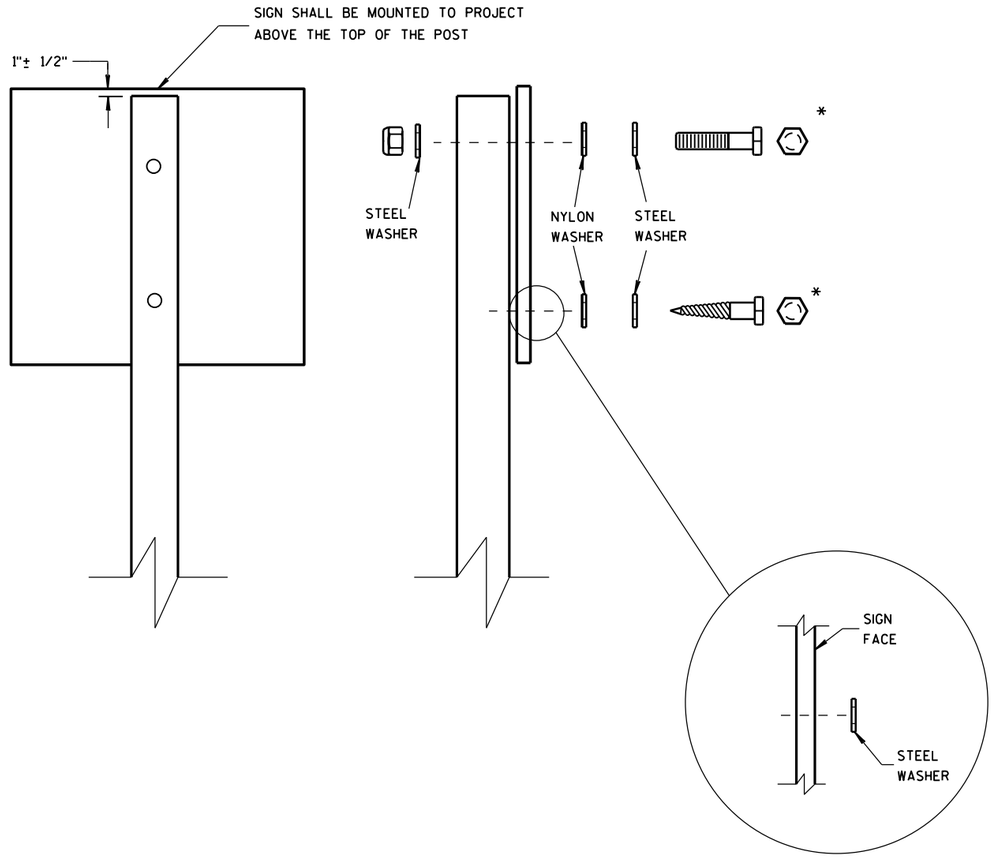
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

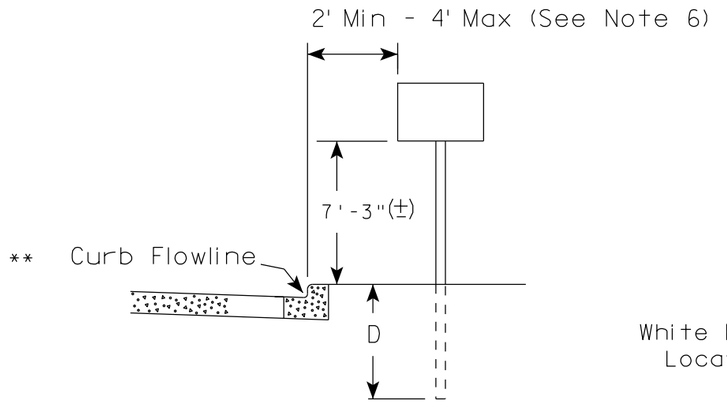
APPROVED

June 2017
DATE

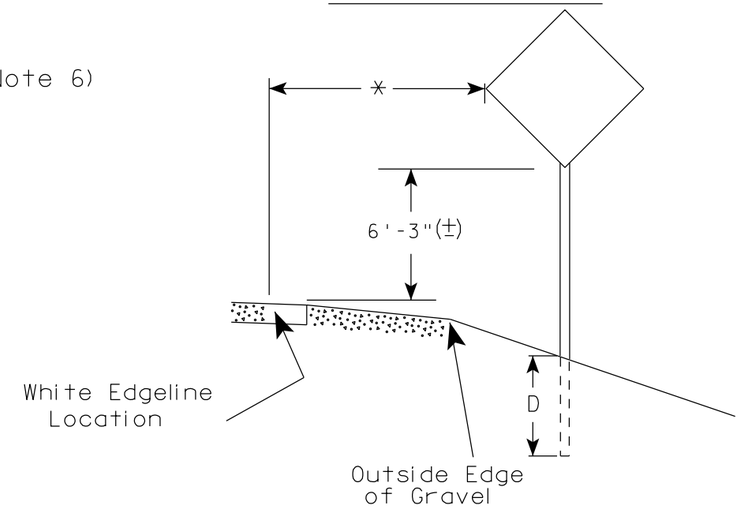
/S/ Andrew Heldtke
WORK ZONE ENG

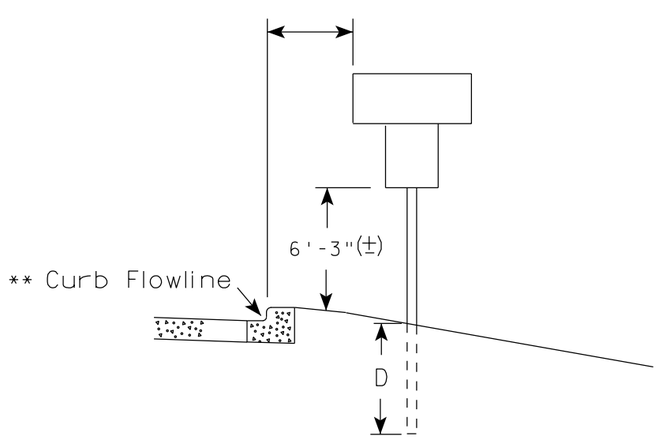
FHWA

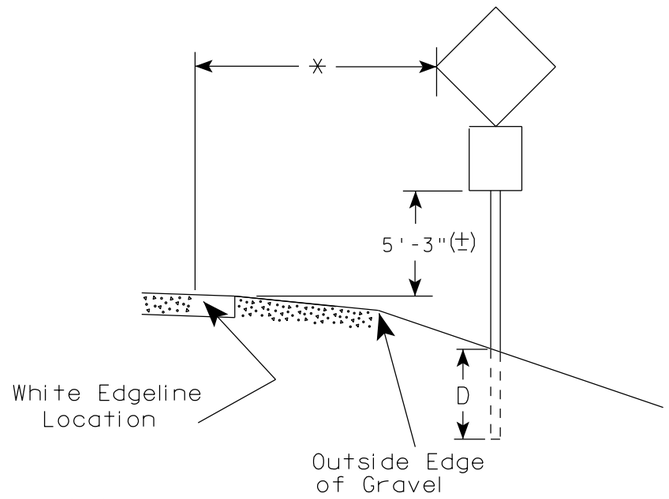
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

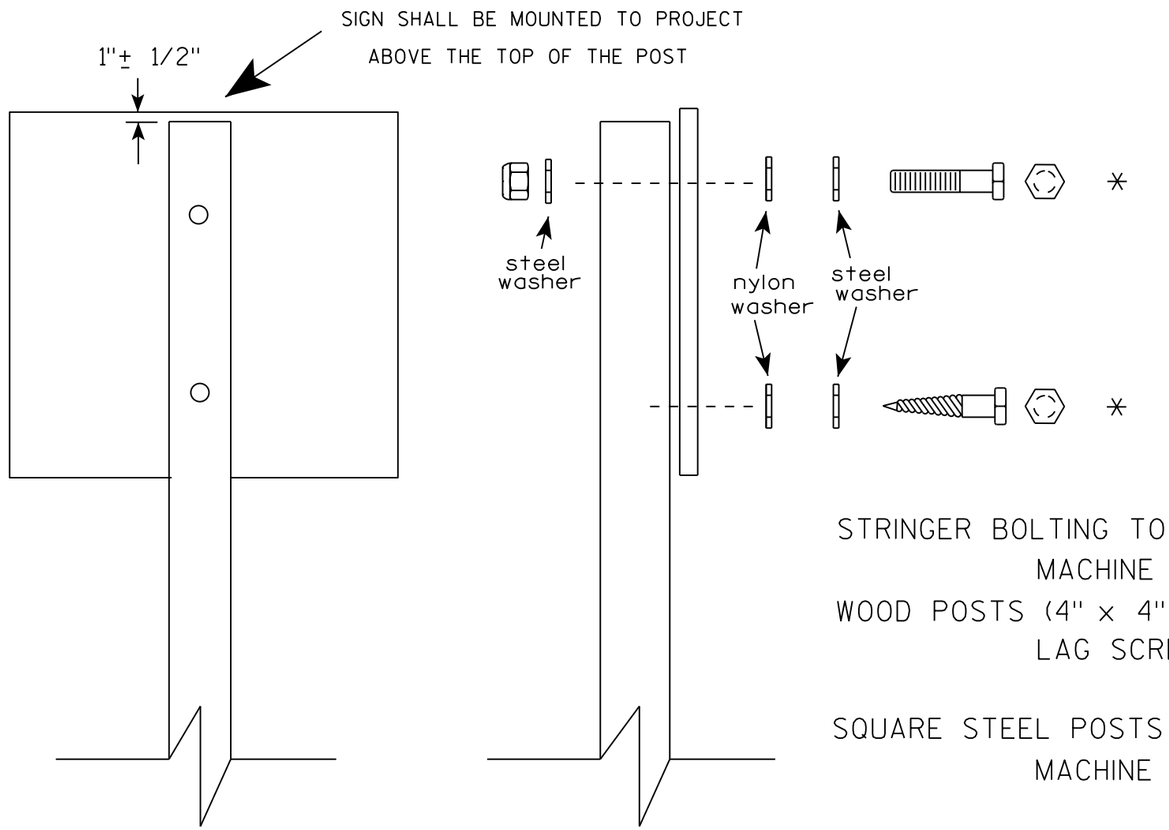
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

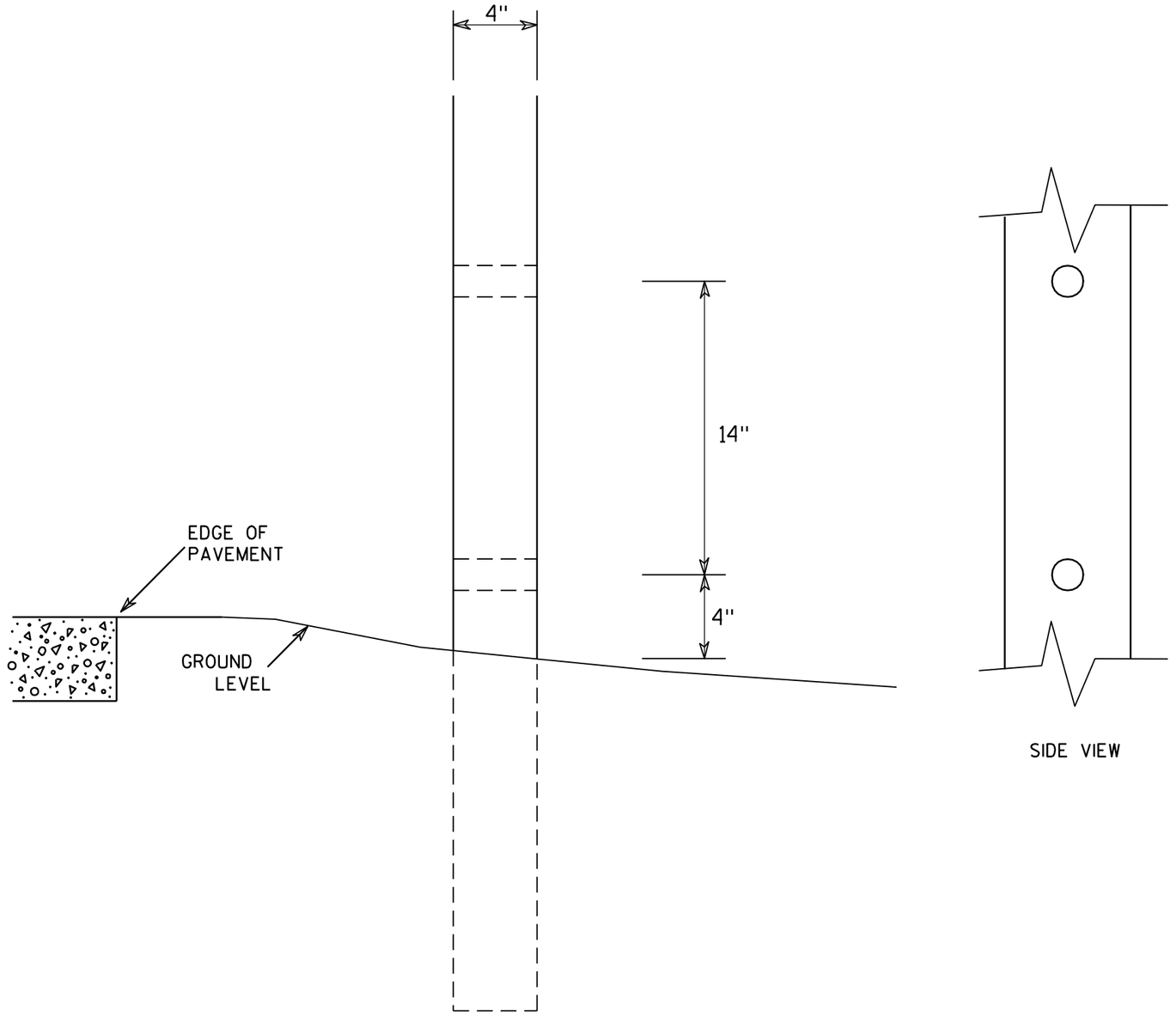
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

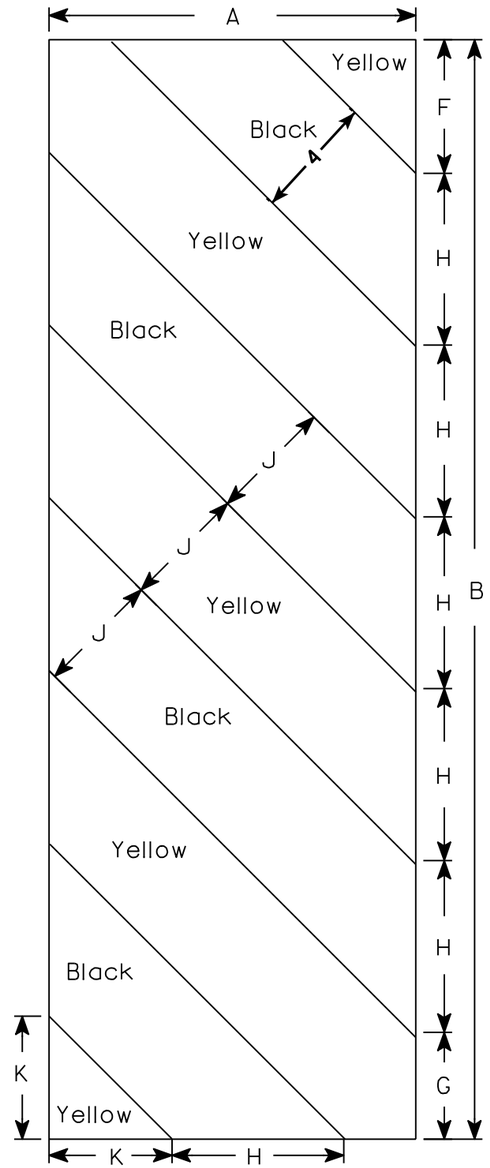
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

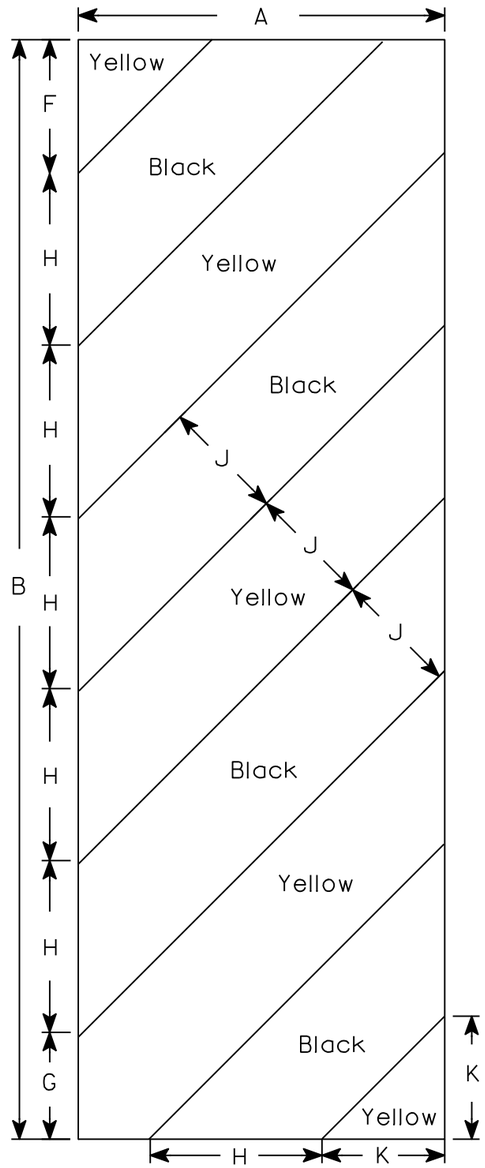
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 22	E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

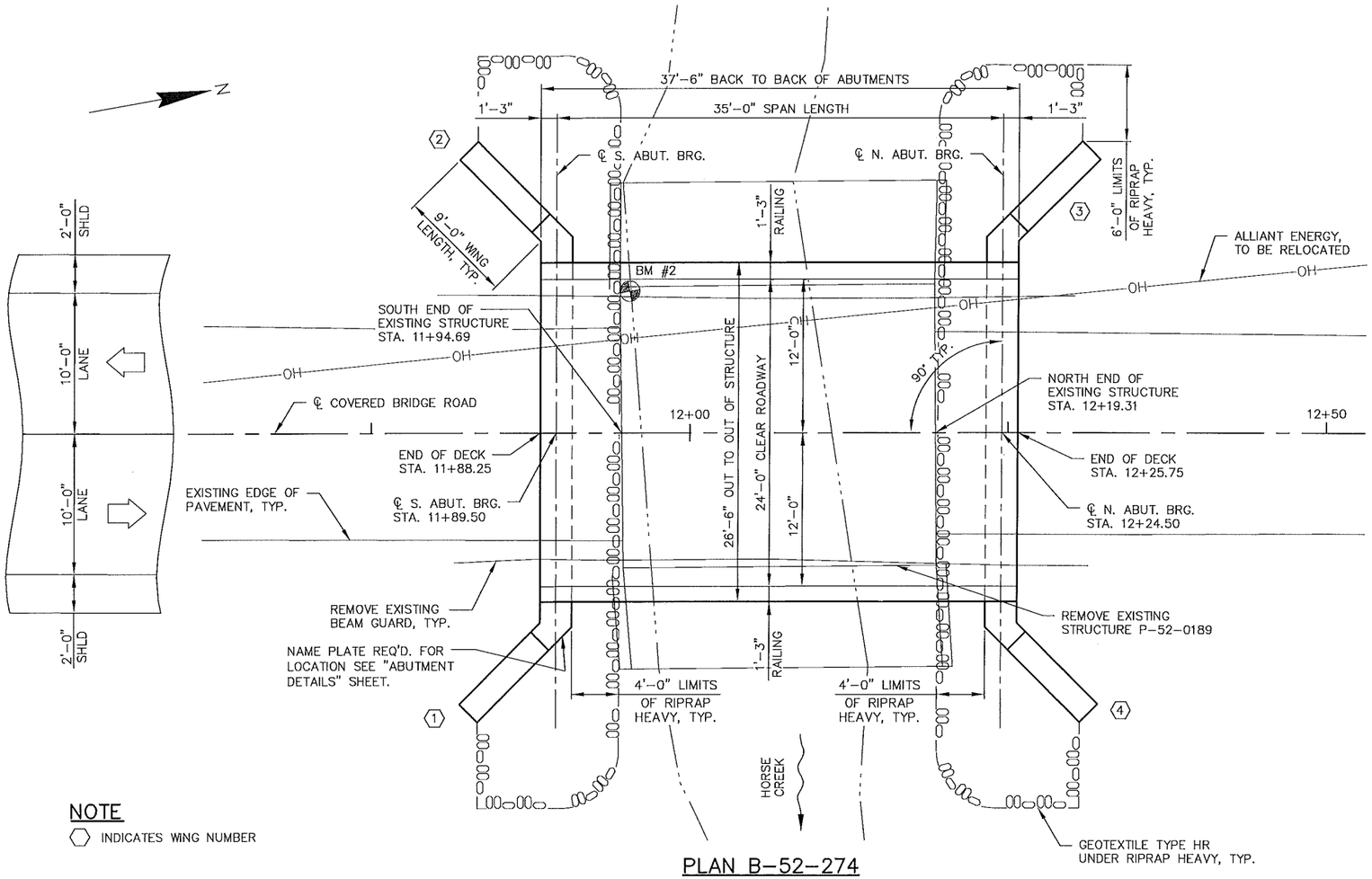
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 23	E

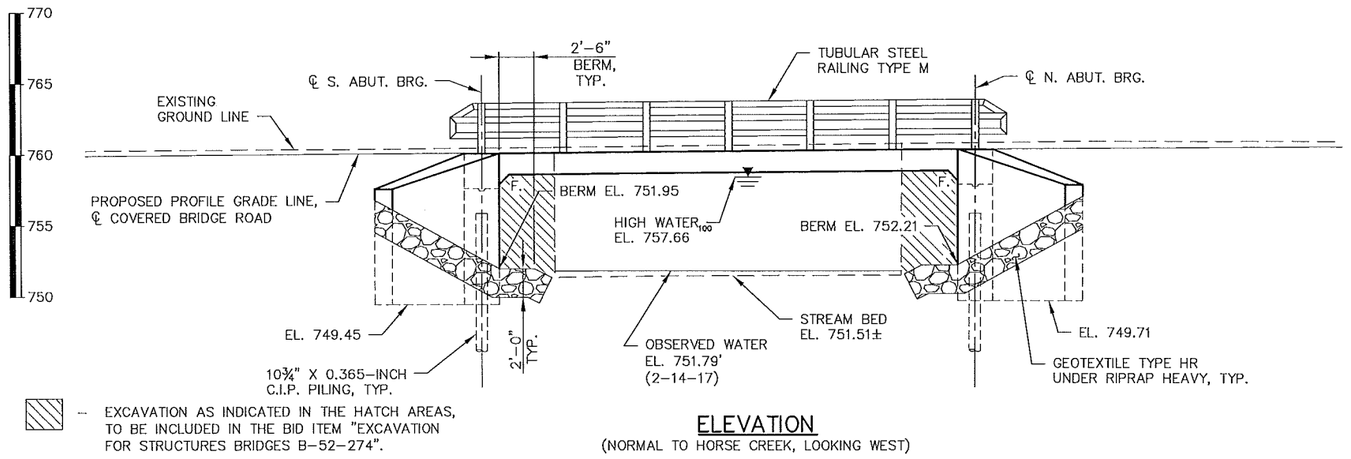


PLAN B-52-274

(SINGLE SPAN REINFORCED CONCRETE FLAT SLAB)

NOTE

⬡ INDICATES WING NUMBER



ELEVATION

(NORMAL TO HORSE CREEK, LOOKING WEST)

DESIGN DATA

STATE PROJECT NUMBER
5365-00-72

LIVE LOAD:

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF=1.38
OPERATING RATING FACTOR	RF=1.79
WISCONSIN STANDARD PERMIT VEHICLE RATING (WIS.-SPV):	250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB	$f'c$ = 4,000 P.S.I.
ALL OTHER	$f'c$ = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT	f_y = 60,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 10¾" X 0.365-INCH C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS* PER PILE AT THE SOUTH ABUTMENT AND 140 TONS PER PILE AT THE NORTH ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40 FT PILE LENGTHS AT THE NORTH AND SOUTH ABUTMENTS.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA:

Q_{100}	1400 C.F.S.
DRAINAGE AREA	7.4 SQ. MI.
BRIDGE WATER AREA	218 SQ. FT.
BRIDGE VELOCITY	6.40 F.P.S.
HIGH WATER$_{100}$ EL.	757.66 FT
SCOUR CRITICAL CODE	5
Q_2	275 C.F.S
Q_2 ELEVATION	753.45 FT
Q_2 VELOCITY	4.2 F.P.S.

TRAFFIC DATA:

A.A.D.T. (2019)	95
A.A.D.T. (2039)	105
DESIGN SPEED	30 M.P.H.

WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
5-30-18
PROFESSIONAL ENGINEER

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
BM #1	13+03.83	RR SPIKE IN POWER POLE, 17.14' LT.	759.46
BM #2	11+95.29	CHISELED 'X' IN SW CORNER OF BOX, 11.05' LT.	760.08

HORIZONTAL DATUM AND ADJUSTMENT: NAD 83 (2011)
VERTICAL DATUM AND ADJUSTMENT: NAVD 88 (2011)
COORDINATE REFERENCE SYSTEM: RICHLAND COUNTY

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

WESTBROOK Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WI 53588
PHONE (608) 588-7866
FAX (608) 588-7954

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/16/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-52-274

COVERED BRIDGE ROAD OVER HORSE CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
RICHLAND	RICHLAND

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDO	CDS	JDO	CDS

GENERAL PLAN

SHEET 1 OF 8

24

BRIDGE OFFICE CONTACT
WILLIAM DREHER, P.E.
(608) 266-8489

CONSULTANT CONTACT
ANDY KNUTSON, P.E.
(608) 588-7866

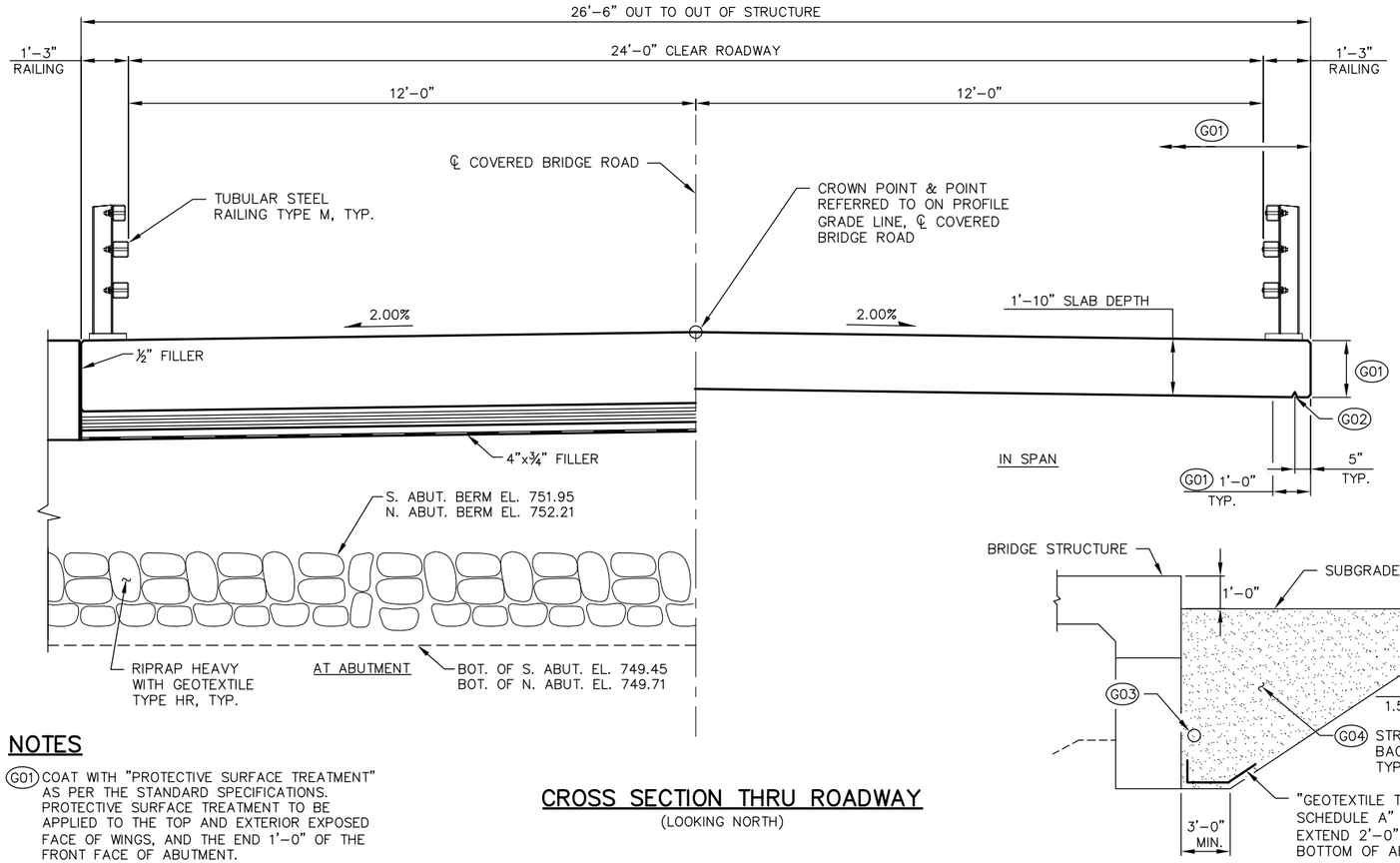
I.D. 5365-00-72

PLOT DATE: May 29, 2018

FILE: 01_B520274_gen.dwg
PLOT SCALE:

8

8



NOTES

G01 COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENT.

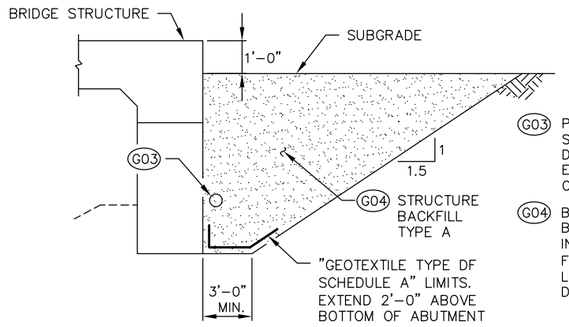
G02 ¾" V-GROOVE REQ'D. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT..

CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

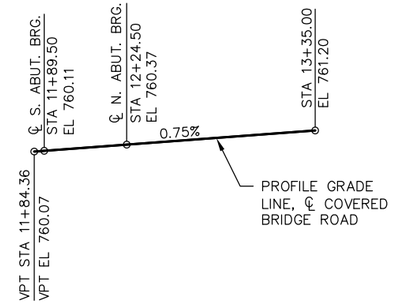
ITEM NO.	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 12+07	LS	---	---	---	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-52-274	LS	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	240	240	---	480
502.0100	CONCRETE MASONRY BRIDGES	CY	37	37	72	146
502.3200	PROTECTIVE SURFACE TREATMENT	SY	17	17	131	165
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2165	2165	---	4330
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1520	1520	13630	16670
513.4061	RAILING TUBULAR TYPE M B-52-274	LF	---	---	80	80
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	6	---	12
550.2106	PILING CIP CONCRETE 10 3/4 X 0.365-INCH	LF	280	280	---	560
606.0300	RIPRAP HEAVY	CY	28	27	---	55
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70	70	---	140
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	43	43	---	86
645.0120	GEOTEXTILE TYPE HR	SY	73	72	---	145
(NON-BID ITEM)	FILLER	SIZE	---	---	---	½" & ¾"



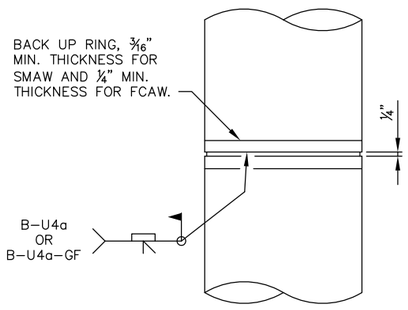
STRUCTURAL BACKFILL DETAIL

G03 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS SHOWN ON "ABUTMENTS" SHEET.

G04 BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-52-274." LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

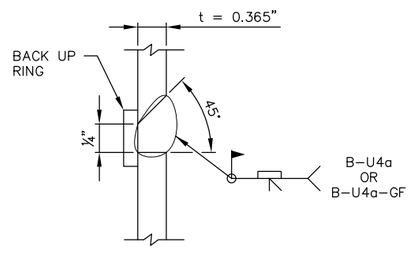


PROFILE GRADE LINE, ℄ COVERED BRIDGE ROAD



CAST-IN-PLACE 'PIPE PILE'

NOTE: CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION.



C.I.P. PILE WELD DETAIL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE SLOPE IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE "GENERAL PLAN" SHEET AND THE "ABUTMENTS" SHEET.

THE FINISHED GRADED SECTION SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

THE EXISTING STRUCTURE (P-52-189) IS A DOUBLE CELL BOX CULVERT STRUCTURE WITH AN OVERALL LENGTH OF 26-FT AND A CLEAR ROADWAY WIDTH OF 20-FT TO BE REMOVED.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-52-274

DRAWN BY JDO | PLANS CK'D CDS

CROSS SECTION, GENERAL NOTES & QUANTITIES

SHEET 2 OF 8

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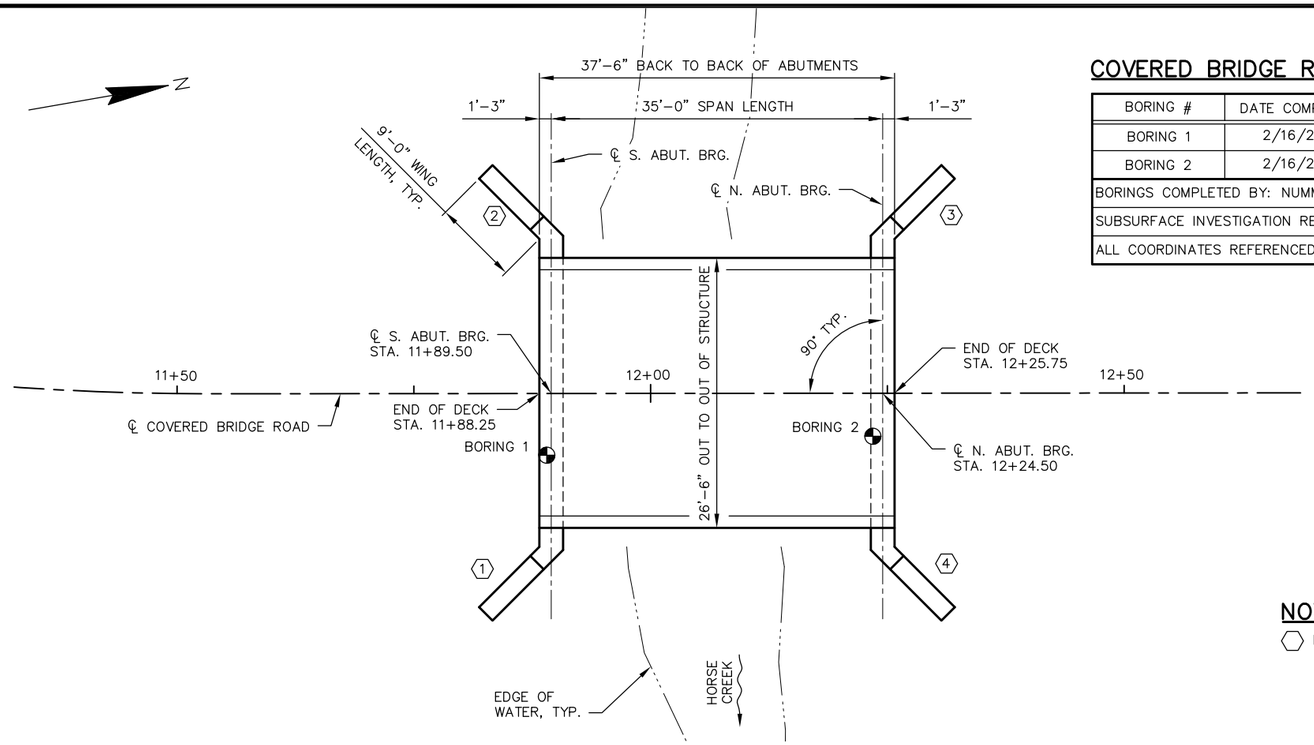
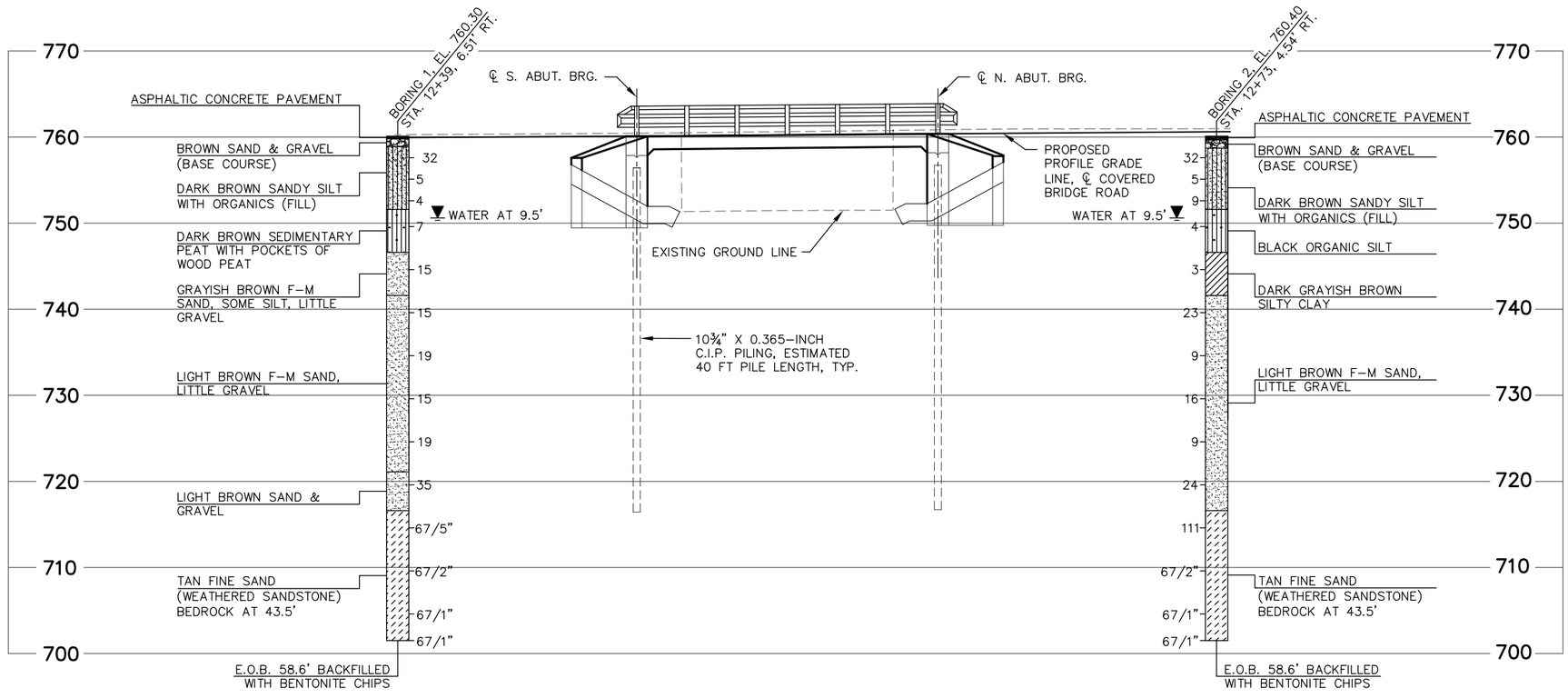


COVERED BRIDGE ROAD

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING 1	2/16/2017	458779.66	666841.47
BORING 2	2/16/2017	458813.76	666846.59
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
SUBSURFACE INVESTIGATION REPORT: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(07) RICHLAND COUNTY			

NOTE

⬡ INDICATES WING NUMBER



STATE PROJECT NUMBER

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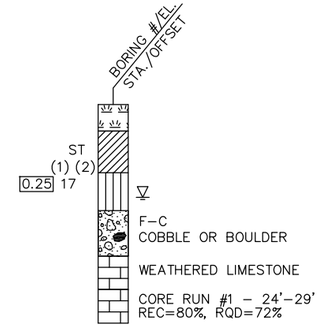
MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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SUBSURFACE EXPLORATION

SHEET 3 OF 8

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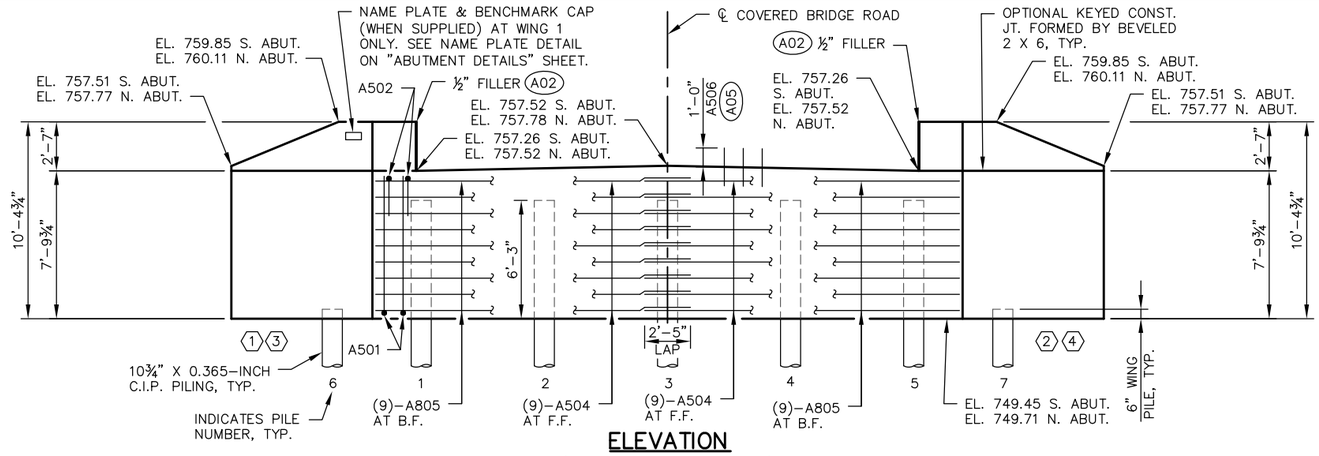
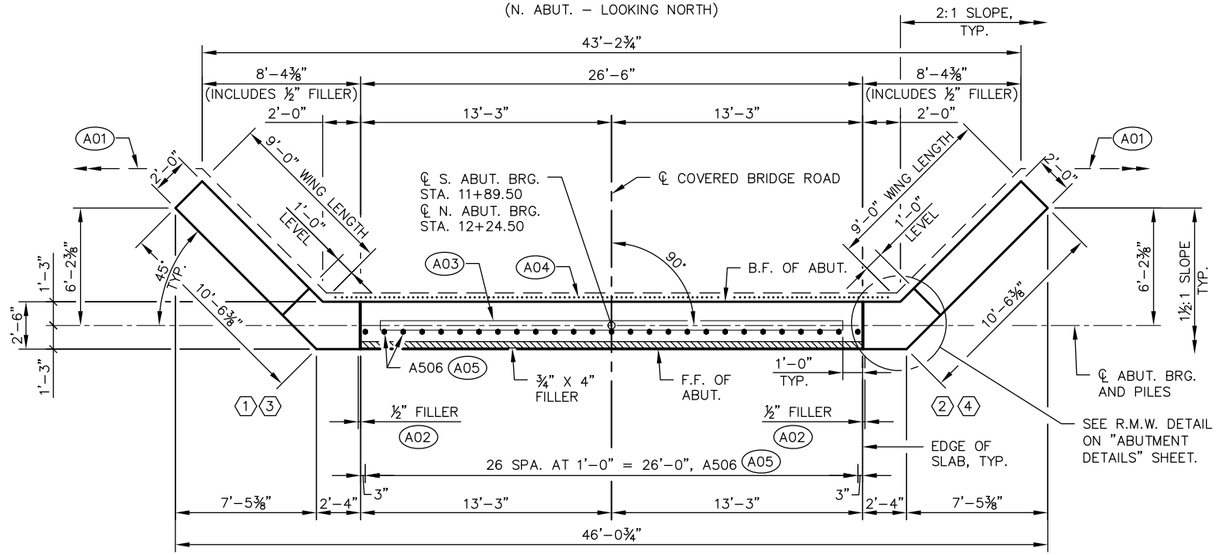
FILE: 03_B520274_bor.dwg
PLOT SCALE:

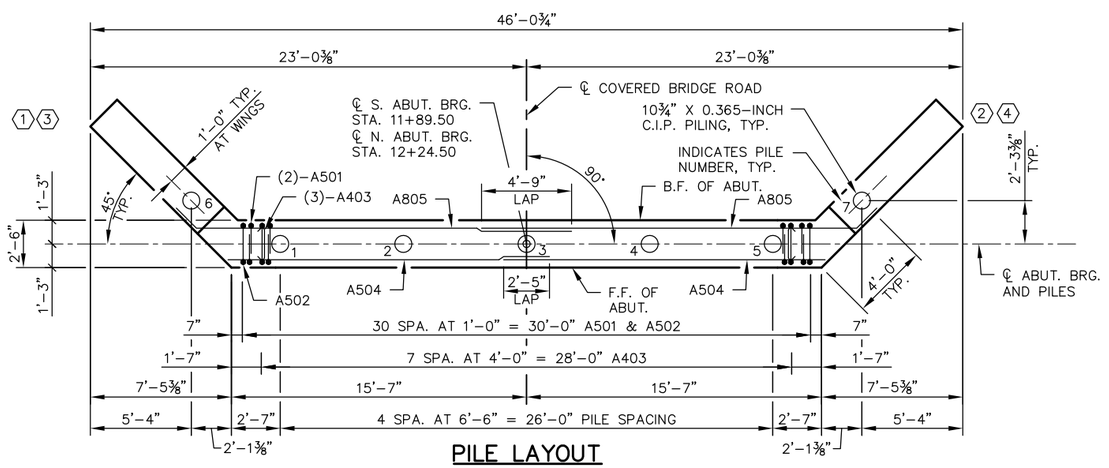


ELEVATION

(S. ABUT. – LOOKING SOUTH)
(N. ABUT. – LOOKING NORTH)



PLAN



PILE LAYOUT

NOTES

DO NOT PLACE FILL ABOVE 3'-0" FROM THE BOTTOM OF THE ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

(A01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE, ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

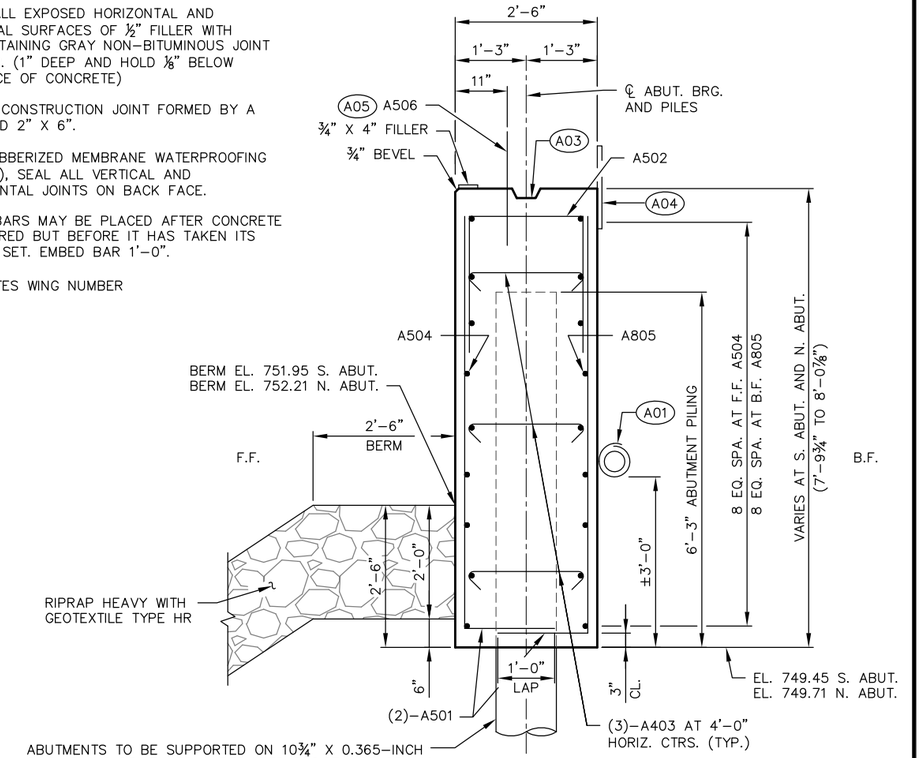
(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)

(A03) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".

(A04) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL VERTICAL AND HORIZONTAL JOINTS ON BACK FACE.

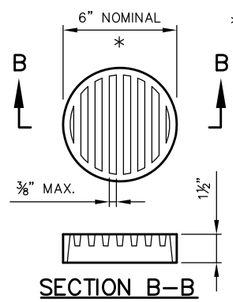
(A05) A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".

⬡ INDICATES WING NUMBER



ABUTMENTS TO BE SUPPORTED ON 10¾" X 0.365-INCH C.I.P. PILING DRIVEN TO A REQUIRED RESISTANCE OF 140 TONS PER PILE. ESTIMATE 40 FT. PILE LENGTHS AT THE S. ABUT. AND 40 FT. PILE LENGTHS AT THE N. ABUT.

TYPICAL SECTION THRU ABUTMENT



SECTION B-B

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

THE RODENT SHIELD. PIPE COUPLING AND SCREWS SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

RODENT SHIELD DETAIL

F.F. – FRONT FACE
B.F. – BACK FACE

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ABUTMENTS

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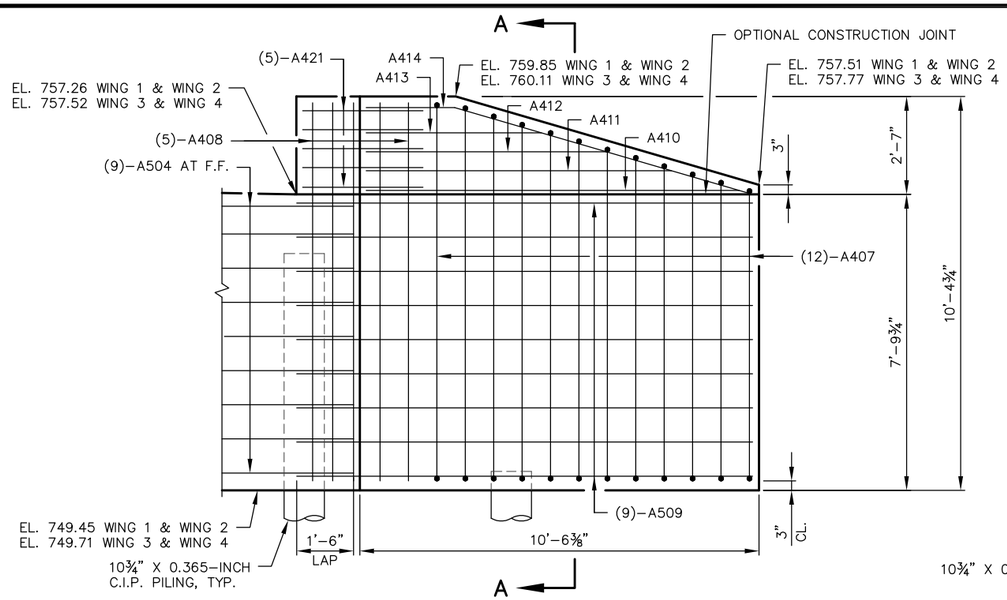
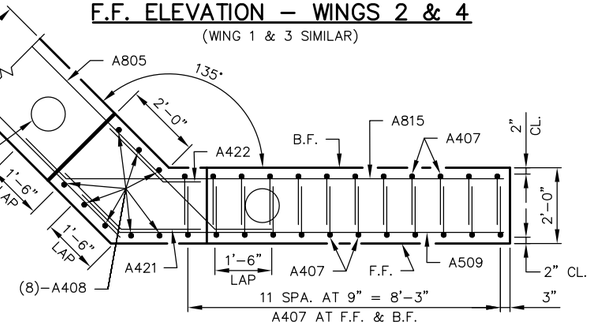


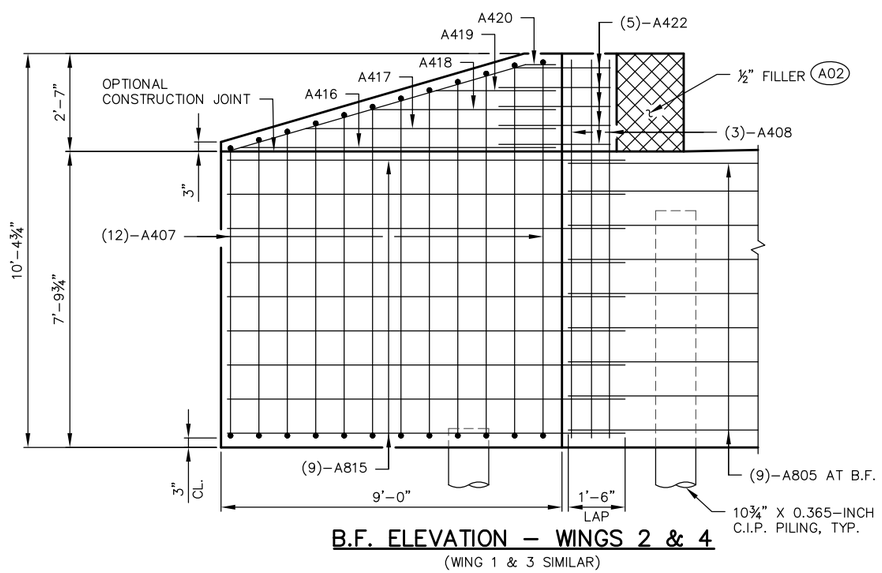
F.F. ELEVATION – WINGS 2 & 4

(WING 1 & 3 SIMILAR)



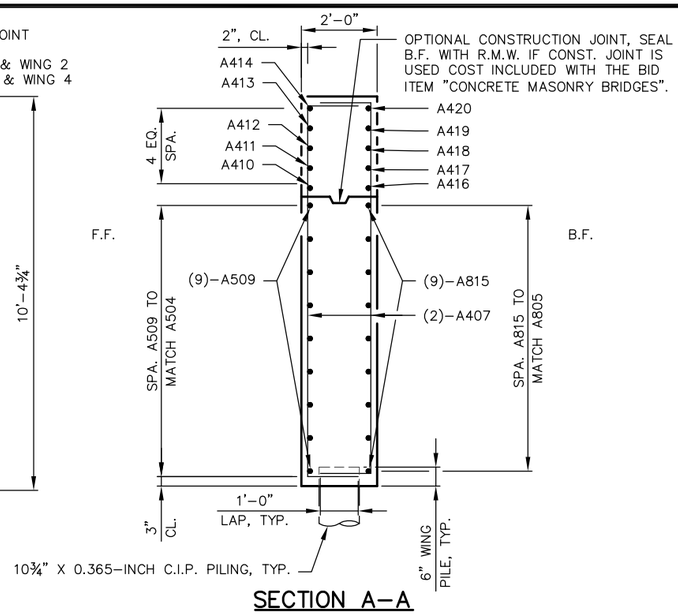
PLAN – WINGS 2 & 4

(WING 1 & 3 SIMILAR)



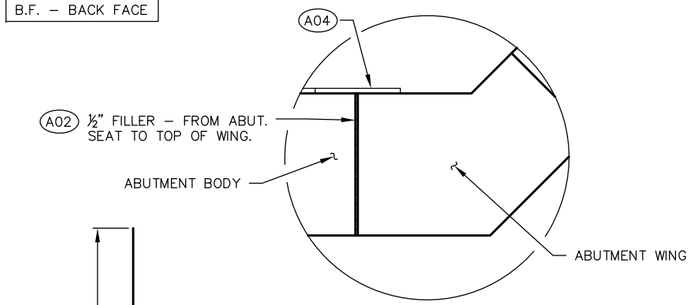
B.F. ELEVATION – WINGS 2 & 4

(WING 1 & 3 SIMILAR)

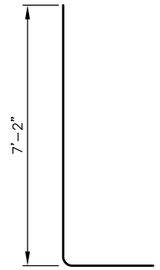


SECTION A–A

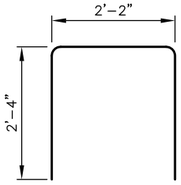
F.F. – FRONT FACE
B.F. – BACK FACE



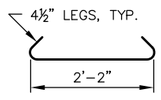
R.M.W. DETAIL



A501

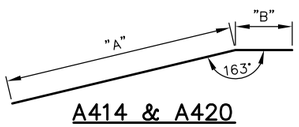


A502



A403

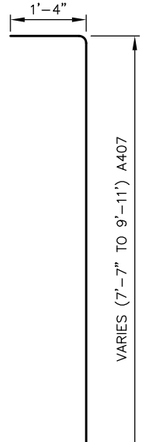
A805, A509 & A815



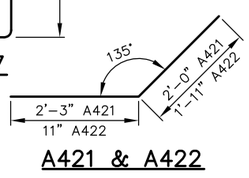
A414 & A420

BAR BEND DIMENSIONS

MARK	"A"	"B"
A414	8'–2"	2'–4"
A420	8'–2"	0'–9"



A407



A421 & A422

BILL OF BARS
BOTH ABUTMENTS

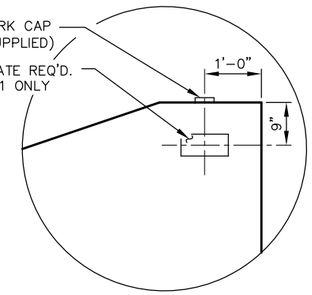
COATED = 3,040 LBS.
UNCOATED = 4,330 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
A501		124	8'–8"	X		BODY STIRRUP – F.F. & B.F.	VERT.
A502		62	6'–7"	X		BODY STIRRUP – TOP	VERT.
A403		48	2'–11"	X		BODY – TIES	HORIZ.
A504		36	16'–10"			BODY – F.F.	HORIZ.
A805		36	21'–4"	X		BODY – B.F.	HORIZ.
A506	54		2'–0"			BODY – DOWELS	VERT.
A407	96		11'–3"	X	⚠	WINGS 1 THRU 4 – STIRRUP – F.F. & B.F.	VERT.
A408	32		9'–11"			WINGS 1 THRU 4 – F.F. & B.F.	VERT.
A509	36		11'–9"	X		WINGS 1 THRU 4 – F.F.	HORIZ.
A410	4		9'–7"			WINGS 1 THRU 4 – F.F.	HORIZ.
A411	4		7'–10"			WINGS 1 THRU 4 – F.F.	HORIZ.
A412	4		6'–2"			WINGS 1 THRU 4 – F.F.	HORIZ.
A413	4		4'–6"			WINGS 1 THRU 4 – F.F.	HORIZ.
A414	4		10'–6"	X		WINGS 1 THRU 4 – F.F. – TOP	HORIZ.
A815	36		13'–3"	X		WINGS 1 THRU 4 – B.F.	HORIZ.
A416	4		8'–1"			WINGS 1 THRU 4 – B.F.	HORIZ.
A417	4		6'–5"			WINGS 1 THRU 4 – B.F.	HORIZ.
A418	4		4'–9"			WINGS 1 THRU 4 – B.F.	HORIZ.
A419	4		3'–1"			WINGS 1 THRU 4 – B.F.	HORIZ.
A420	4		8'–11"	X		WINGS 1 THRU 4 – B.F. – TOP	HORIZ.
A421	20		4'–2"	X		WINGS 1 THRU 4 – F.F. CORNER	HORIZ.
A422	20		2'–9"	X		WINGS 1 THRU 4 – B.F. CORNER	HORIZ.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE "BAR SERIES TABLE" FOR ACTUAL LENGTHS.



NAME PLATE DETAIL

NOTES

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

(A04) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.). SEAL ALL VERTICAL AND HORIZONTAL JOINTS ON BACK FACE.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
A407	8 SERIES OF 12	10'–1" TO 12'–5"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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STRUCTURE B–52–274

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ABUTMENT DETAILS

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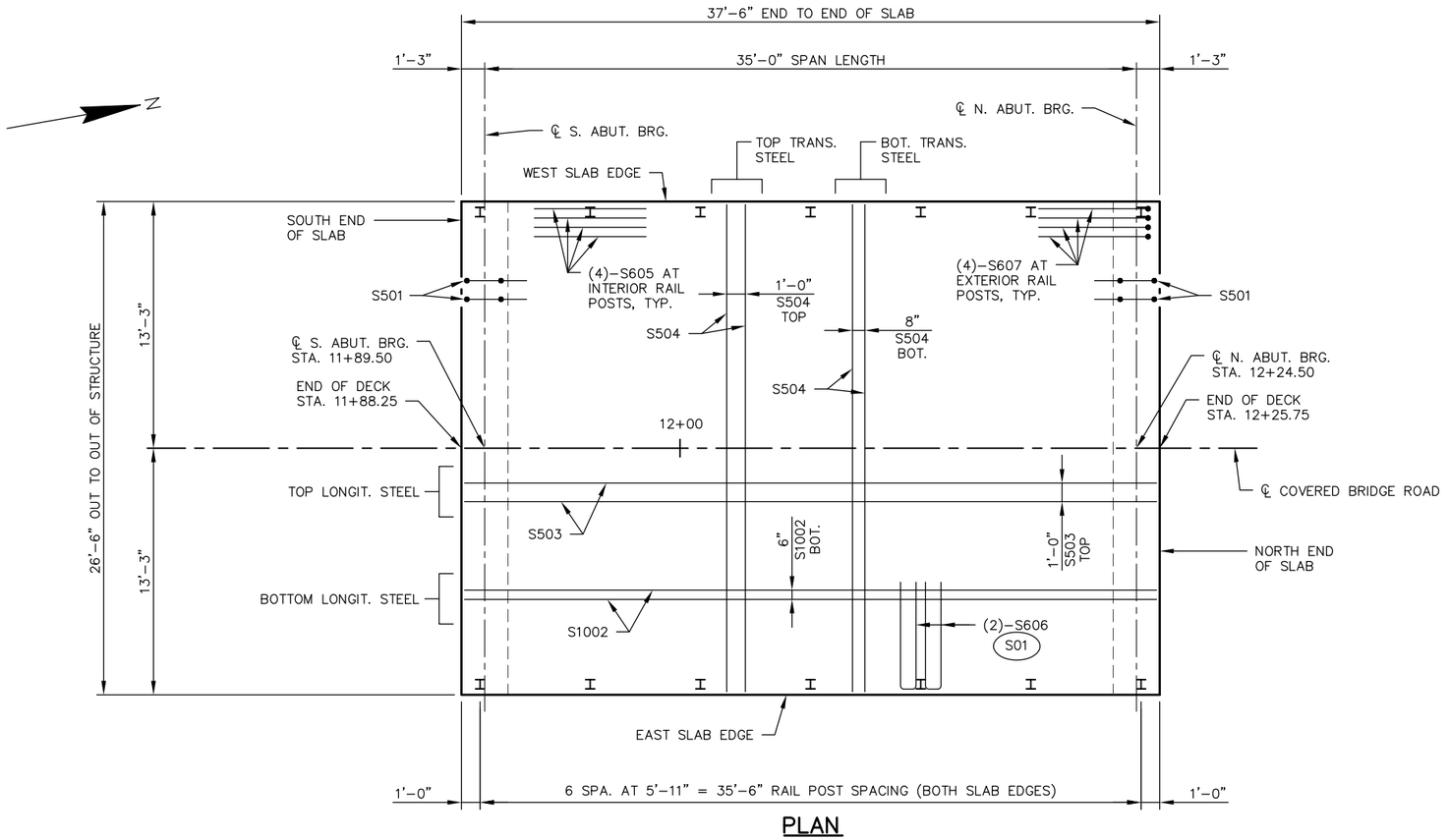


PLAN

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'–0" CENTERS EACH WAY.

BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'–0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

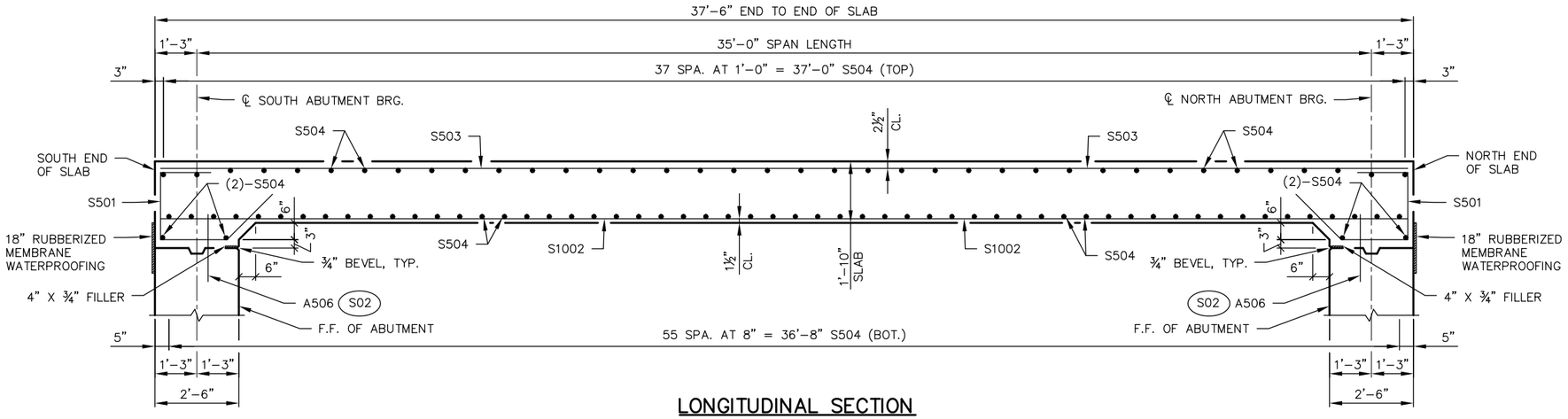
RAILING TO BE PLACED ON THE SLAB AFTER FALSEWORK HAS BEEN RELEASED.

(S01) ADJUST ORIENTATION OF S606 BAR AT END POST TO ENSURE CLEAR COVER AT END OF DECK.

(S02) SEE "ABUTMENTS" SHEET FOR PLACEMENT OF A506 BARS.

TOP OF DECK ELEVATIONS

SPAN PT	W. SLAB EDGE	℄ COVERED BRIDGE ROAD	E. SLAB EDGE
℄ S. ABUT.	759.85	760.11	759.85
0.1	759.87	760.13	759.87
0.2	759.90	760.16	759.90
0.3	759.93	760.19	759.93
0.4	759.95	760.21	759.95
0.5	759.98	760.24	759.98
0.6	760.01	760.27	760.01
0.7	760.03	760.29	760.03
0.8	760.06	760.32	760.06
0.9	760.08	760.34	760.08
℄ N. ABUT.	760.11	760.37	760.11



LONGITUDINAL SECTION
(LOOKING WEST)

F.F. – FRONT FACE
B.F. – BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–52–274

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SUPERSTRUCTURE

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I.D. 5365–00–72

PLOT DATE: May 29, 2018

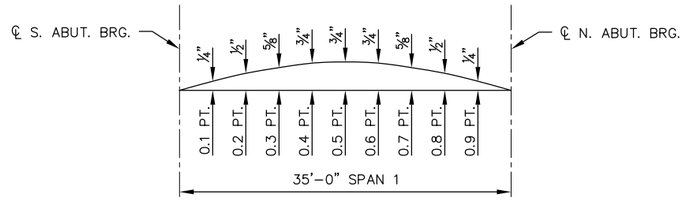
FILE: 06–07_B520274_super.dwg
PLOT SCALE:

8

8

STATE PROJECT NUMBER

5365–00–72



SLAB CAMBER DIAGRAM

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION.

SURVEY TOP OF SLAB ELEVATIONS

	℄ S. ABUT. BRG.	5/10 PT.	℄ N. ABUT. BRG.
WEST SLAB EDGE			
℄ COVERED BRIDGE ROAD			
EAST SLAB EDGE			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND REFERENCE LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

BILL OF BARS
SUPERSTRUCTURE

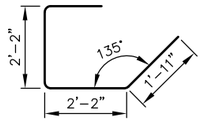
COATED = 13,630 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
S501	54		7'–5"	X		SLAB AT ABUTMENT – TIES	LONGIT.
S1002	53		37'–2"			SLAB – BOTTOM	LONGIT.
S503	27		37'–2"			SLAB – TOP	LONGIT.
S504	98		26'–2"			SLAB – TOP & BOTTOM	TRANS.
◑ S605	40		6'–0"			RAILING ANCHORS – INTERIOR POSTS	LONGIT.
◑ S606	28		12'–0"	X		RAILING ANCHORS	TRANS.
◑ S607	16		5'–10"	X		RAILING ANCHORS – END POSTS	LONGIT.

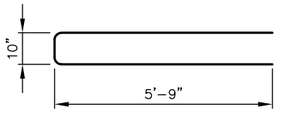
THE FIRST OR FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

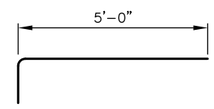
◑ SEE "SUPERSTRUCTURE" SHEET AND "TUBULAR STEEL RAILING TYPE M" SHEET FOR PLACEMENT.



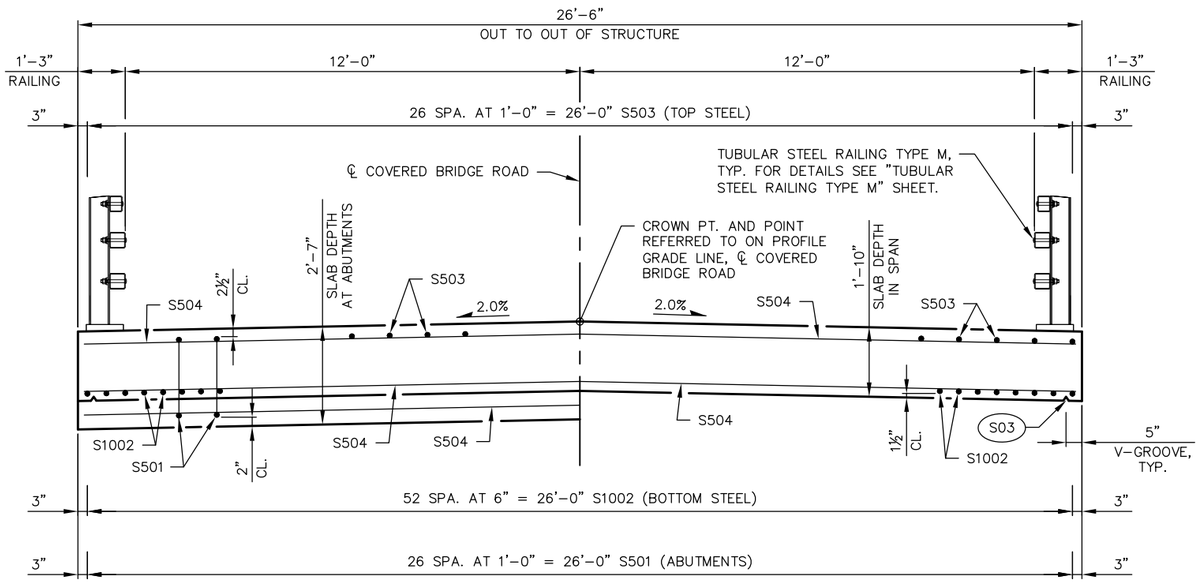
S501



S606



S607



AT ABUTMENTS

IN SPAN

CROSS SECTION THRU ROADWAY
(LOOKING NORTH)

NOTES

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

(S03) ¾" V–GROOVE REQUIRED. EXTEND V–GROOVE TO 6" FROM FRONT FACE OF ABUTMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–52–274

DRAWN BY JDO | PLANS CK'D CDS

SUPERSTRUCTURE DETAILS

SHEET 7 OF 8

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8

I.D. 5365–00–72

PLOT DATE: May 29, 2018

FILE: 06–07_B520274_super.dwg
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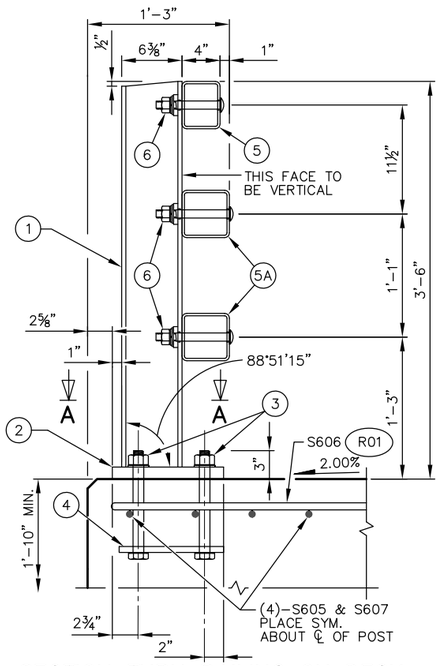
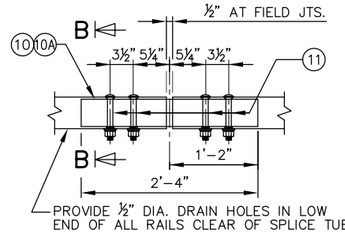
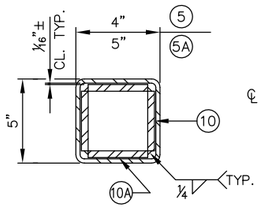


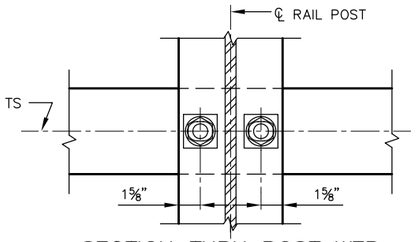
SECTION THRU RAILING ON DECK



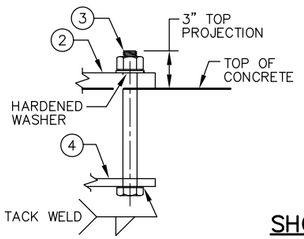
FIELD ERECTION JOINT DETAIL



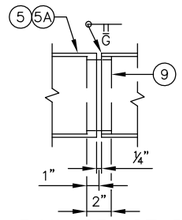
SECTION B-B



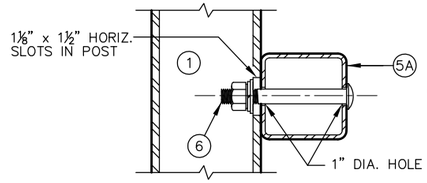
SECTION THRU POST WEB



ANCHOR BOLTS



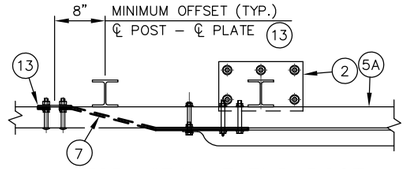
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



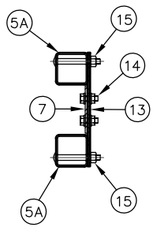
SECTION THRU RAIL

NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

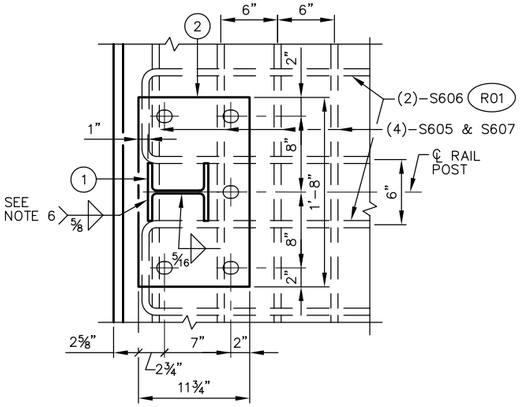
TYPICAL RAIL TO POST CONNECTIONS



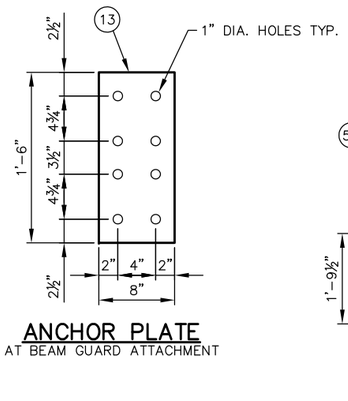
TOP VIEW AT END POST
(THRIE BEAM RAIL ATTACHMENT)



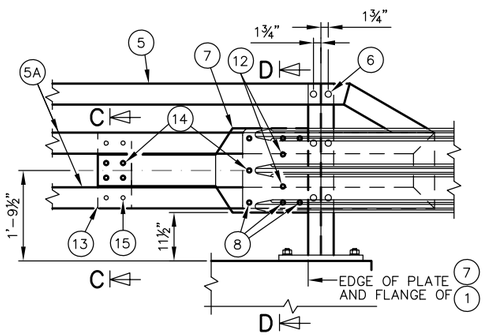
SECTION C-C



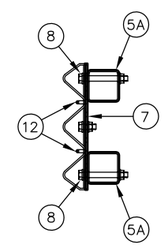
SECTION A-A



ANCHOR PLATE
AT BEAM GUARD ATTACHMENT



DETAIL AT END POST
(THRIE BEAM RAIL ATTACHMENT)



SECTION D-D

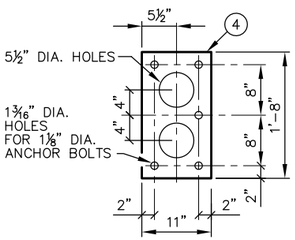
LEGEND

1. W6 x 25 WITH 1⅛" x 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1¼" x 11¾" x 1'-8" WITH 1 5⁄16" x 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
3. ASTM A449 – 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)
4. ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3⁄16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3⁄16" x 1⅝" x 1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THK. BACK-UP PLATE WITH 2 – ⅞" x 1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" x 3⅝" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" x 2⅝" x 2'-4" PLATE USED IN NO. 5, ⅜" x 3⅝" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER. USE 15⁄16" x 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15⁄16" x 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
12. ⅞" DIA. x 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
14. ⅞" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

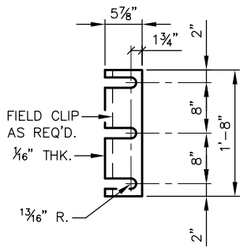
NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-52-274" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. SEE BRIDGE MANUAL 30.2 FOR ALLOWED USE.

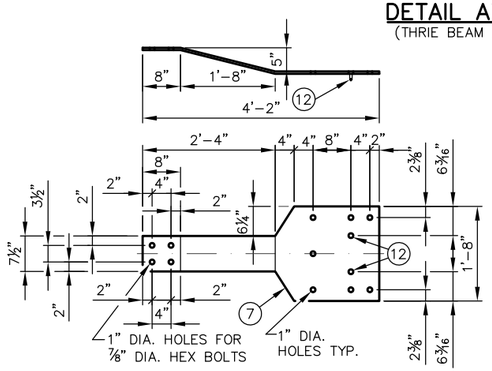
R01 TIE TO TOP MAT OF STEEL.



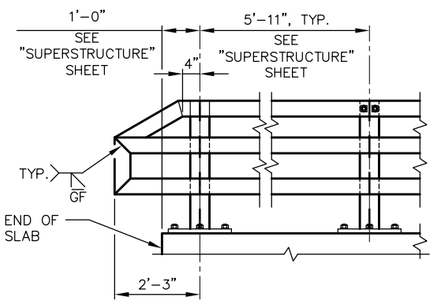
ANCHOR PLATE
AT RAIL TO DECK CONNECTION



POST SHIM DETAIL



BACK-UP PLATE DETAIL
AT BEAM GUARD ATTACHMENTS



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-52-274

DRAWN BY JDO | PLANS CK'D CDS

TUBULAR STEEL RAILING TYPE M

SHEET 8 OF 8

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I.D. 5365-00-72

PLOT DATE: May 29, 2018

FILE: 08_B520274_mrail.dwg
PLOT SCALE:

8

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MAINLINE EARTHWORK (I.D. 5365-00-72)

APPROACH 1

Station	Length(ft)	Common Exc Area	Common Exc yd3	Common Exc Adj. vol	Fill Area	Fill yd3	Shrinkage Factor(30%)	Total (CY)
10+00.00		25.7			0.0			
	50		43	43		3	3.9	39.1
10+50.00		21.2			3.2			
	50		37	37		9	11.7	25.3
11+00.00		18.9			6.7			
	50		45	45		13	16.9	28.1
11+50.00		29.2			7.0			
	38		42	42		10	13.0	29.0
11+88.00		31.0			7.0			
				STRUCTURE B-52-274				
Subtotal	167	167	35	46	121			

APPROACH 2

Station	Length(ft)	Common Exc Area	Common Exc yd3	Common Exc Adj. vol	Fill Area	Fill yd3	Shrinkage Factor(30%)	Total (CY)
12+25.00		32.0			6.0			
	25		29	30		5	6.5	22.5
12+50.00		31.5			4.3			
	50		52	52		7	9.1	42.9
13+00.00		24.5			2.9			
	35		31	31		2	2.6	28.4
13+35.00		23.7			0.0			
Subtotal	112	113	14	18	95			

TOTAL EXC= 279
ROUND TO= 280

EARTHWORK SUMMARY		
COMMON	=	280 CY
FILL	=	49 CY
SHRINK	=	30 %
WASTE	=	216 CY

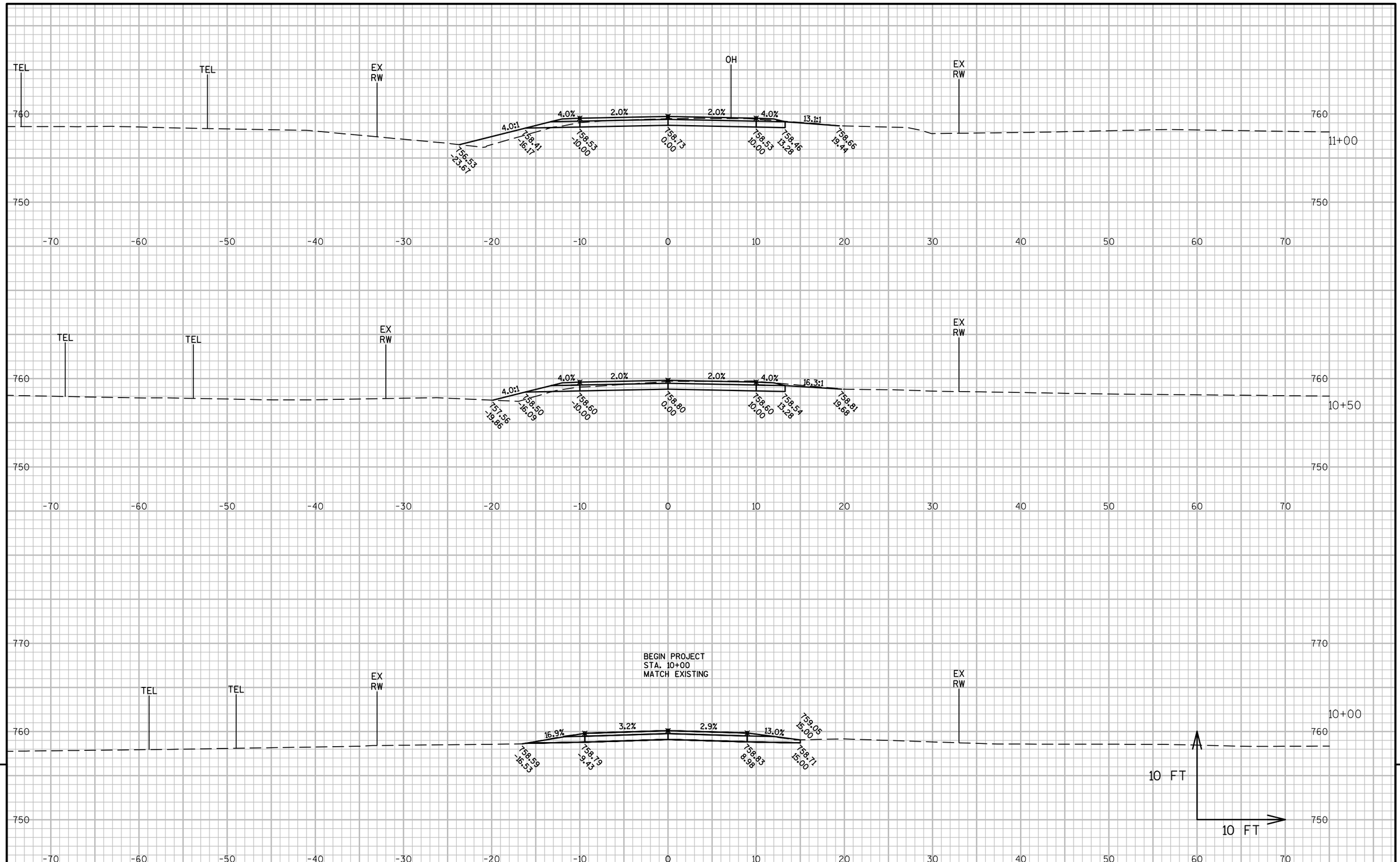
10 FT
10 FT

9

9

PROJECT NO:5365-00-72	HWY:COVERED BRIDGE ROAD	COUNTY:RICHLAND	EARTHWORK	SHEET 32	E

FILE NAME : G:\00-PROJECT FILES\2017\17026 T. OF RICHLAND, COVERED BRIDGE ROAD ID 5365-00-02\CAD\COVERERED BRIDGE ROAD\SHEETSPLAN\090101_EW.DWG PLOT DATE : 5/14/2018 11:15 AM PLOT BY : LUKE C. SANDER PLOT NAME : PLOT SCALE : 1 IN:10 FT



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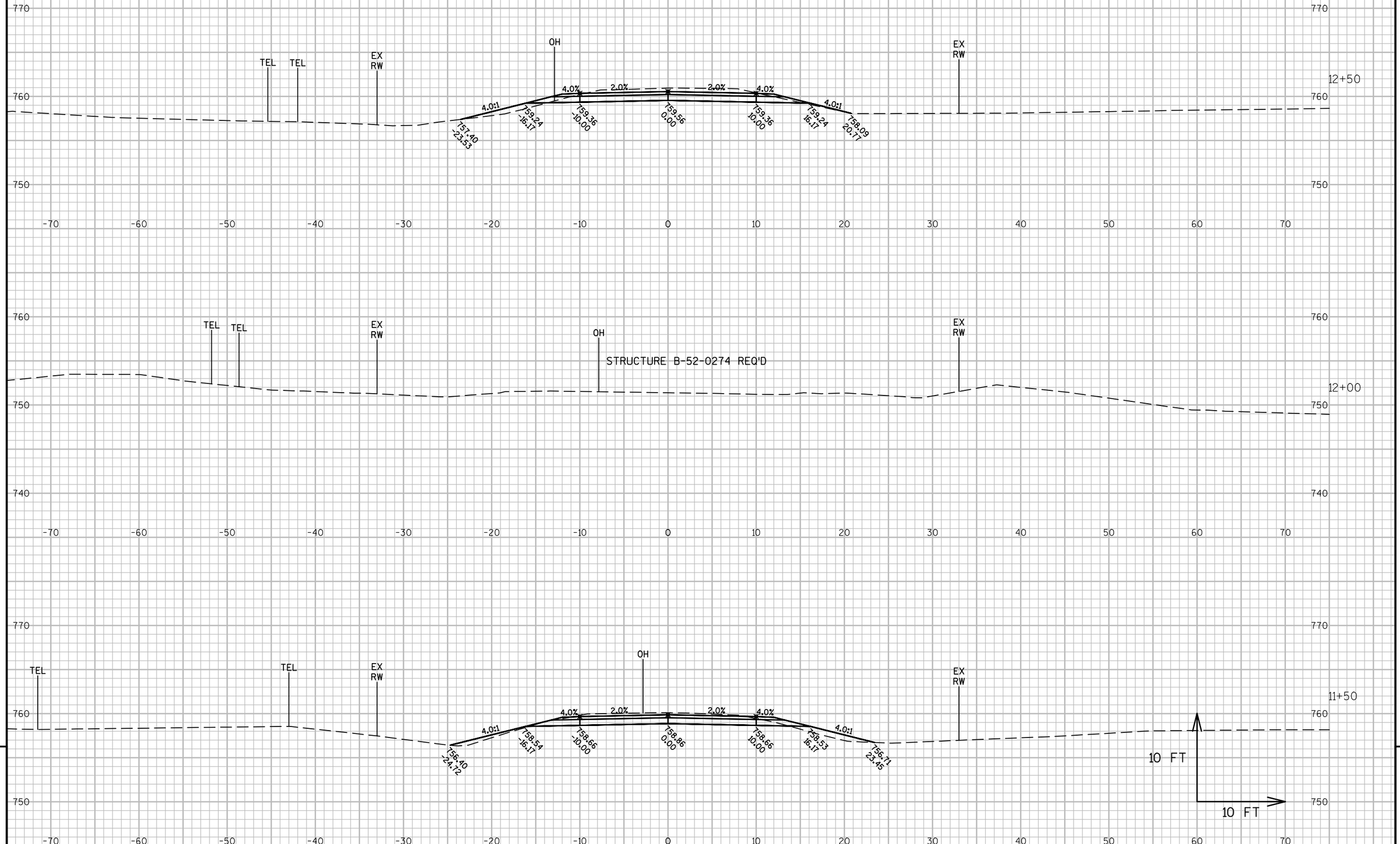
PROJECT NO: 5365-00-72	HWY: COVERED BRIDGE ROAD	COUNTY: RICHLAND	CROSS SECTIONS:	SHEET 33	E

FILE NAME : G:\00-PROJECT FILES\2017\17026 T. OF RICHLAND, COVERED BRIDGE ROAD ID 5365-00-02\CAD\COVERERED BRIDGE ROAD\DESIGN\CORRIDORS\X-SECT.DWG 3/13/2018 1:18 PM PLOT BY : LUKE C. SANDER PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 090201_XS

WISDOT/CADDS SHEET 49



PROJECT NO: 5365-00-72	HWY: COVERED BRIDGE ROAD	COUNTY: RICHLAND	CROSS SECTIONS:	SHEET 34	E

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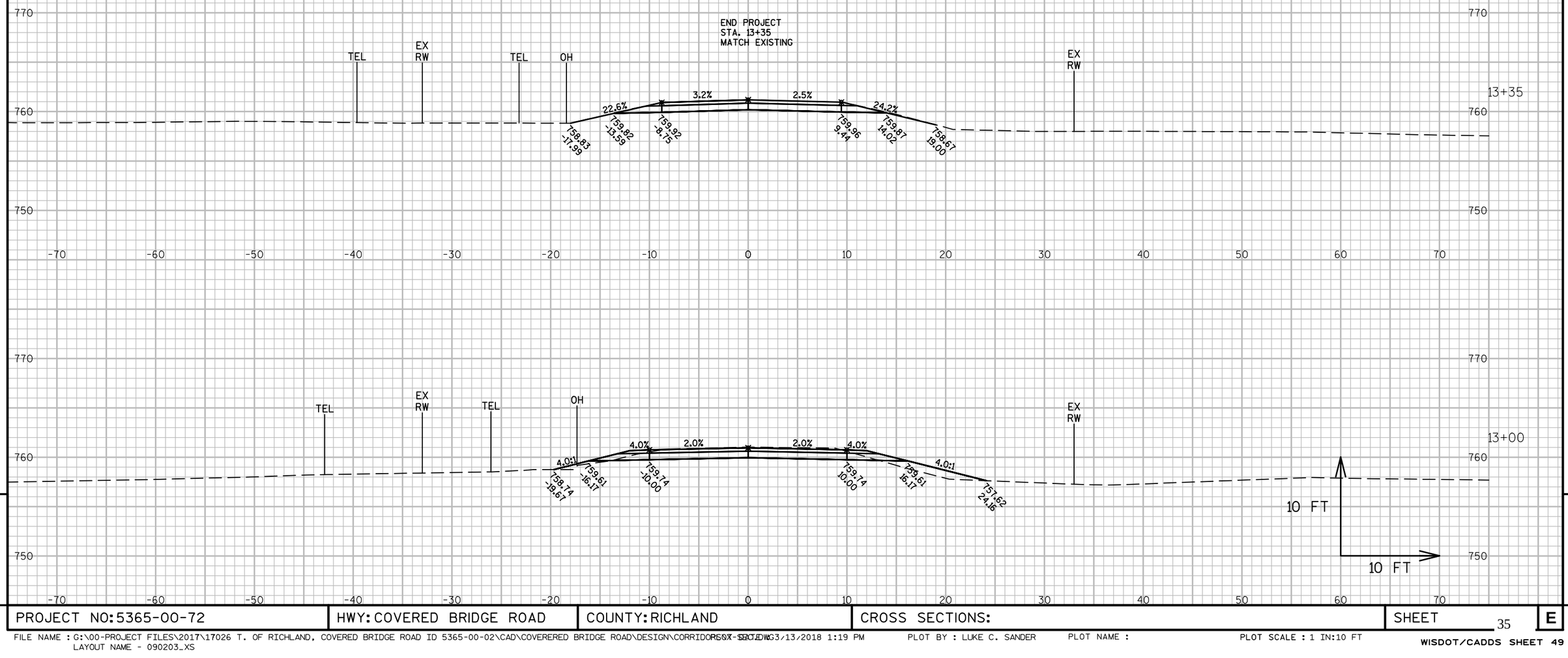
LAYOUT NAME - 090202_XS

WISDOT/CADDS SHEET 49



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PROJECT NO:5365-00-72	HWY: COVERED BRIDGE ROAD	COUNTY: RICHLAND	CROSS SECTIONS:	SHEET 35	E

FILE NAME : G:\00-PROJECT FILES\2017\17026 T. OF RICHLAND, COVERED BRIDGE ROAD ID 5365-00-02\CAD\COVERERED BRIDGE ROAD\DESIGN\CORRIDOR\CS0X-SECT.DWG 3/13/2018 1:19 PM PLOT BY : LUKE C. SANDER PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 090203_XS

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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